Clinical Lecture
ON
THE TREATMENT OF TYPHOID FEVER BY PROLONGED IMMERSION IN WATER.

Delivered at the Northern Hospital, Liverpool, on Nov. 16th, 1889,

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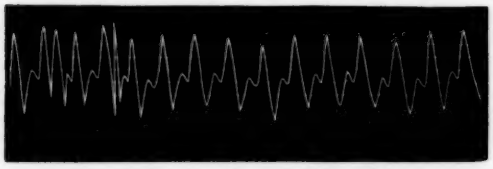
(Continued from p. 586.)

CASE 5. *Typhoid fever, bronchitis; immersed in the tank for six days; cure.*—Sophia H——, aged sixteen, was admitted to hospital on Sept. 23rd, 1889. She says her illness began on Sept. 8th, with dizziness and pain in the head, and she has kept to her bed since then. The headache abated after the first week, and three days ago she began to be troubled with cough. There has been no diarrhœa. She is apathetic, but quite intelligent. Lips dry and cracked; tongue very dry, brown, glazed, and fissured in the centre, moist, with creamy fur along sides, red and dry at tip. Lower lip trembles. Pulse 126, weak and dicrotic. Heart sounds dull. Loud dry rhonchus over the whole front of chest; over the lower lobes, the percussion is impaired, breathing feeble, and expiration prolonged. Splenic dulness measures four inches and a half by four inches and a half. Abdomen is not distended or tender except in the right iliac fossa; no gurgling. Numerous lenticular rose spots on the chest, abdomen, and back. Hepatic dulness rather large, extending one inch below the margin of the ribs. Temperature on admission 102·4°, extremities cold, and finger tips very livid; pupils normal. Says that she slept well until last night, when she was kept awake by her cough. The medical man who sent her into hospital reports that for the past four or five days the temperature has been 103°, varying three or four points between morning and evening; when he first saw her, on Sept. 13th, the morning temperature was 102°. Placed on six pints of milk, and ordered four grains of calomel.—24th (seventeenth day): Patient passed a good night, cough still very troublesome, but almost no expectoration. She vomited a little bilious matter this morning; bowels have not been moved since admission. Pulse 120, soft, very compressible, and hyperdicrotic. Temperature ranged between 99·4° and 103·8°; average 102·6°.—25th: Tongue very dry, cracked, and almost black in the centre; breath very foul; slept well; complains greatly of pain behind the sternum when she coughs; no expectoration. Pulse 112 to 120. Temperature ranged from 100·2° to 103°; average 101·9°. She was placed in the tank at 9 P.M.; temperature of water 98°. Her net weight was at this time 97½ lb. (This patient was in the tank between the two periods that the preceding case was immersed.) She was ordered a cough mixture and a dose of castor oil. — 26th: She did not sleep very well last night owing to the novelty of her situation, but feels much better to-day. Her tongue is still rather dry, but no longer black, and is now only slightly furred; cough not so painful; pupils normal; respiration 28, quiet; pulse 104, of fair volume and tension. Temperature ranged from 99·6° to 102·6°; average 101·1°. Tank lowered to 93°.—27th: Patient is much improved, tongue clean and moist, but transverse fissures well marked; pupils normal. Cough is much less. Respiration 20, quiet; pulse 108, very compressible; first cardiac sound dull; average temperature 99·3°. Free motion, first since admission.—28th: Patient looks and feels well. Pulse 108, fair tension. Her temperature fell to 97° at 4 P.M. The temperature of the tank was then raised from 93° to 98°, and her temperature soon rose, reaching 102·8° at 8 P.M., and continued at that till midnight. The tank was lowered to 95° at 10 P.M., and by 4 A.M. her temperature was 98°. Tank to be kept at 95°.—30th: Average temperature to-day 99·8°. Two loose motions. Ordered peptonised milk and bread.—Oct. 2nd: She was removed from the tank yesterday evening, after having spent five days in it, during which time she lost 5½ lb., her net weight being now 92 lb. Respiration 19, quiet; slight cough. Pulse 136, of fair tension. The patellar jerks are slightly exaggerated, and there is ankle clonus. Since her removal from the tank her temperature has maintained a higher level, the average to-day being 101·4°.—3rd: Pulse 128; respiration 20; average temperature 99·4°. Bowels confined. Ordered four grains of calomel.—4th: Pulse 116; respiration 20; average temperature 99·2°. Ordered one grain of calomel each evening.—10th: Ordered bread and beef-tea. Urine normal.—14th: This patient is making rapid progress in convalescence. The patellar reflexes are still rather active, ankle clonus well marked, plantar reflex exaggerated.—18th: Net weight 98 lb.—22nd: Placed on ordinary diet.—23rd: Net weight 99 lb.—Nov. 1st: 100 lb.—8th: 107 lb. Discharged Nov. 14th, quite well.

CASE 6. *Dysentery of eight months' duration; typhoid fever; immersed in tank for thirty-one days; cure.*—George M'N——, aged twenty-eight, steward, was admitted to hospital on Sept. 9th, 1889. This is a fairly well developed man of medium height, weight 127 lb., with light clothing. For the last eight months he has suffered from dysentery contracted in the Brazils. The motions are watery and slimy, and often contain blood. Bowels are sometimes moved as often as thirty times a day. At other times, when taking chlorodyne, he may have only five or six motions. There is great pain and straining at stool. Constant borborygmi. He has been taking ordinary diet. His tongue is large, flabby, indented at the edges, tremulous, and coated with a brown fur. Pulse 80, full and tense. No tenderness over abdomen. He feels weak, sleeps badly, and has no appetite. Temperature normal. He was placed on milk and arrowroot. Ordered ten grains each of pulv. ipecacuanhæ co. and pulv. ipecacuanhæ with a drachm of the syrup of red gum, every four hours. On the 18th the following powders were substituted: aromatic chalk powder with opium (twenty grains) and ipecacuanha powder (five grains), one every four hours. On Sept. 19th he was placed on bread-and-milk, lime-water, two eggs, and arrowroot. Notwithstanding treatment, he got rather worse, and had never less than twelve motions daily. Towards the end of September he got dispirited, and talked about leaving the hospital. His frame of mind was not improved by seeing another patient under my care, who was suffering more severely from dysentery than himself, rapidly improve under similar treatment. His weight on Sept. 20th and 27th was 126 lb.—Sept. 28th (nineteenth day): In the forenoon he had a rigor, he sweated all day, and in the evening his temperature was 104°. He complained of headache and pain in the præcordium.—29th: Liver considerably enlarged, and there is much tenderness in the right half of the epigastric region. Bowels very loose. Temperature: Morning, 101·8°; evening, 104·6°. He is getting into a very anxious nervous condition, and is affected with general tremor.—Oct. 1st: The headache is less severe, and there is less tenderness in the epigastrium. There are gurgling and tenderness in the right iliac fossa, and over the trunk are a few elevated, rose-coloured spots, disappearing on pressure. Tongue thickly coated with a white fur. Pulse 108, large and very compressible. Temperature: Morning, 101·4°; evening, 104·2°. He got ten grains of antipyrin. His gums are becoming rather tender, which is ascribed to the deprivation of fresh vegetables; and he was ordered a tablespoonful of lime-juice, together with two grains of quinine and thirty grains of aromatic chalk, four times a day. Leiter's tubes applied to the abdomen.—2nd: Temperature: 8 A.M., 102°; 4 P.M., 103·6°; 8 P.M., 104°.—4th: There is a copious elevated rose rash, disappearing on pressure. The pain in the right iliac fossa was very intense last night. Notwithstanding the Leiter's tubes, his temperature for the last two days has ranged between 103·4° and 104°. Patellar reflexes exaggerated; marked ankle clonus.—5th: This patient lies in a listless attitude, and pays little attention to his surroundings. He is sensible; complains of headache and pains in the limbs, both of which have somewhat abated during the last day or two. Very sleepless; thirsty. Pupils normal. Tongue very tremulous; coated in the centre with a dry brown fur, the tip dry, and rather denuded of its epithelium. His hands and limbs are very tremulous. Pulse 132, moderately large, soft, and to finger markedly dicrotic. Skin hot and dry. Epigastric and cremasteric reflexes absent, and only slight responses elicited of plantar reflexes. Patellar reflex and ankle clonus very marked. Liver from fifth rib six inches downwards, lower border three

inches below xiphoid cartilage. Spleen six by four inches and a half. Lungs resonant, breathing at upper part of right lung puerile; at both bases a few fine crepitations at end of inspiration. Respiration 30; temperature 103° to 104° net weight 115 lb. He was put into the tank at a temperature of 95° at 9 P.M.—6th: There was a fall of 2° in his temperature during the first twelve hours in the tank, but when taken out at 10 A.M. for two hours it rose to its former level. He is back again in the tank at a temperature of 90°. Tongue less tremulous, brown and dry, but beginning to get moist. Respiration 26; pulse 126, markedly hyperdicrotic. Ordered naphthaline (six grains) and aromatic chalk powder with opium (ten grains) every four hours.—7th: Did not sleep very well. Feels better to-day. Tongue tremulous, brown fur, moist. Pulse 144; respiration 34, no cough. The tank has been kept at 90°. Patient's temperature fell from 104° at noon yesterday to 100° at 4 P.M.; it has not since risen, and is nearly normal this morning. He was out of the tank from 9 30 to 11 A.M., and at noon his temperature was 102°, but by 4 P.M. it had fallen to 98·6°. Diarrhœa still profuse, but slightly abated since he was put in the tank.—8th: Slept well last night, but muttered most of the time Pupils normal. Pulse 146, firmer and smaller; respiration 31; mean temperature 99·5°.—9th: He had a quiet night, but he muttered a little while he slept. To-day he says he feels very well. Tongue moist and much cleaner. Pupils slightly contracted. Respiration 31; pulse 152, moderately full and very compressible. Diarrhœa less. Tank not so offensive. Mean temperature to-day 100·8°. Ordered one ounce of lime-juice in half a pint of saccharated lime-water twice daily.—10th: This patient did not sleep at all last night and shivered most of the time. This morning he says he feels very well. The tongue is pretty clean, gums improved,



pupils normal. Respiration 33; pulse 152, full and compressible, face flushed; reflexes still exaggerated. Mean temperature to-day 99 5°. Ordered, in addition to his other medicine, ten minims of tincture of belladonna every four hours.—11th: Slept pretty well last night, felt better; pupils rather wide. Respiration 36; pulse 152, full but compressible; temperature, midnight, 99°; 4 A.M., 98·8°; 8 A.M., 97·8°. He was taken out of the tank at 9 30 A.M. on account of alterations in the ward, so as to convert it into a tank-room, and not replaced till 7.30 P.M. His temperature at noon was 100·4°; at 4 P.M., 102·6°; at 8 P.M., 102 0°; and at midnight, 98·6°. The temperature of the tank was now raised to 93°.—12th: He did not sleep much last night, but was quiet and comfortable. When out of the tank yesterday he was hot, perspired freely, and was very pleased to return to the water again. His tongue is rather brown and dry, and also his throat, probably from the effects of the belladonna. He takes his food well, and the diarrhœa is considerably less. Respiration 30; pulse 120, full and of good tension; mean temperature 98 3°. Tank raised to 95°. Urine normal. Placed on nine pints of milk.—14th: Respiration 21; pulse 124. Diarrhœa diminished. Mean temperature for two days 99·2°. Belladonna stopped.—16th: He was out of the tank yesterday from 8 A.M. to 7 P.M., during which time his temperature rose from 97·4° to 100 8°. It had fallen by midnight to 98·2°. He was taken out of the tank to-day at 10.30 A.M., and replaced in it at 7 P.M. During this time his temperature rose from 97·4° to 99 8°, and fell at midnight to 98·2°. During the rest of his sojourn in the tank his temperature remained normal, so there will be no necessity to make further reference to it.—18th: The patient slept very well last night, and feels well to-day. Tongue clean, but still tremulous; appetite good, pupils normal. Patellar reflexes exaggerated, moderate ankle clonus. Plantar and cremasteric reflexes normal. The whole body is covered to-day with a red papular rash, disappearing entirely on pressure; this is probably due to common salt and muriatic acid, which have been added to the tank to increase the antiseptic action of the usual pound of boric acid. All medicine stopped, except lime-juice. At this time it became necessary to see that the tank water was thoroughly aseptic, as my surgical colleagues were afraid that I was going to convert this institution into a fever hospital. This apprehension was considerably intensified by a report that one of our nurses who had gone away on her holidays was suffering from typhoid fever. The nurse returned with the view of entering the tank, but I found that she was only suffering from febricula, which passed away in a few days. On Oct. 19th and 20th I had the tank water converted into a solution of the perchloride of mercury (1 in 2000), which, owing to the interchange of water, was reduced at the end of each day to 1 in 3000, or less. Dr. Logan, who kindly tried some cultivations of bacilli for me, found that this rendered the fæces antiseptic, but by the end of the second day we found that it was beginning to sterilise the patient. His gums began to get red and spongy, there was slight ulceration around the teeth, and in the inner surface of both lips opposite the canines. The mercury was of course stopped. The patient feels very well, diarrhœa has almost ceased, the motions being reduced to two or three in the day.—Oct. 25th: The motions were more formed yesterday than the day before, but to-day are not so well formed. Slept well and feels well, gums and lips improving. Put on a mixture of iodide of potassium.—29th: The motions are reduced to two daily, but are not yet formed. Papular rash improving. Gums slightly improved. The patellar reflexes are still exaggerated. Ankle clonus well marked. Left plantar reflex normal, right nearly absent.—Nov. 1st: Net weight 95 lb.—5th: Taken out of the tank, having been immersed for thirty-one days. Net weight 98¾ lb.—10th: Net weight 104½ lb.—16th: He is now quite recovered from the typhoid, but is still very weak. There was a slight return of the dysenteric diarrhœa after his removal from the tank, but that is now controlled by ipecacuanha, and I think that he will soon be completely cured of the dysentery as well as of the typhoid.[1]

(Cases 7, 8, and 9 are under treatment, and the prognosis is favourable.)

CASE 7.[2]—Mary Ann P——, aged twenty-one, was admitted to hospital on Nov. 4th, on the ninth day of the disease. Her temperature was 104°, and reached 104·8° the following day. She was then placed in the tank at a temperature of 90°. Her progress was most satisfactory, and by the nineteenth day the temperature was normal. She was taken out of the tank last night (twentieth day), and there has since been no rise of temperature. She is to-day very comfortable; pulse 88, of fair volume, and strength; there are exaggerated knee-jerks and slight ankle clonus. During the ten days in the tank her weight fell from 127½ lb. to 117½ lb. This case showed the great advantage of getting the patient into the tank at an early stage of the disease.

CASE 8.[3]—Helen D——, aged twelve, was admitted to hospital on Nov. 13th (seventeenth day of the disease). Her temperature for the previous eight days ranged from 102° to 103 8°, and on reception it was 104·4°. She was then in a very feeble, exhausted condition, with a weak pulse of 144. There were exaggerated knee jerks and marked ankle clonus. She was placed in the tank at 95°, and her temperature fell about two degrees. On the morning of the nineteenth day (yesterday) Dr. Wallace found that the heat of the tank had not been carefully maintained during the night, and her temperature had fallen to 98°,

[1] Mr. Thomas Duncanson, one of the engineers under the Liverpool Corporation, has devised an apparatus for elevating paralysed or otherwise helpless patients for sanitary purposes. By this method you can raise the patient almost as easily as you could a window-blind. He is about to fit up one for our tanks, so that we shall be able to obviate any æsthetic objections to the use of this treatment.

[2] This patient made an excellent recovery. She was ten days in the tank.

[3] This was a very severe and complicated case. She was only received into hospital on the seventeenth day of the disease, and the same night was placed in the tank. On the twenty-second day she had hæmorrhage from the bowel, which did not recur. This was evidently due to ulceration into a vessel, and in no way vitiates my opinion as to the effect of the tank treatment, when begun at an early stage of the disease, in preventing hæmorrhage. She suffered from troublesome vomiting, and was allowed six ounces of champagne daily for a short time. This is the only case in which alcohol in any form was used. For a fortnight the pulse ranged from 144 to 164, and was very feeble. She also suffered from monoplegia of the left forearm, with great wasting of the extensors. This afterwards completely recovered under the influence of massage and galvanism. She was removed from the tank on the forty-third day of the disease, having been immersed for twenty-six days. She was discharged on Jan. 15th, 1890, quite well.

and she was rather livid and somewhat collapsed. He had her taken out of the tank, and hot bottles applied to her surface. The lividity quickly passed away, and her temperature ran up to 104·2°. She was ordered a mixture, every four hours, containing one grain and a half of caffeine and five minims of the tincture of belladonna in each dose. She was put into the tank at 98°, but her temperature remained about 104° for some hours. It has fallen this morning to 101·8°, and is now going steadily down. Dr. Wallace added three minims of the tincture of digitalis to each dose of her mixture. You will now find her very comfortable, and I have no doubt she will get quite well. This case illustrates the necessity for keeping a close watch over the temperature of the tank when the patient has only been put into it at a late stage of the disease, when the vital powers are low. This is more especially the case in children where the cooling surface of the skin is relatively great to the mass of the body; and in them the power of reaction is less than in adults.

CASE 9.[4]—Harriet J——, aged twenty-two, was admitted to hospital last night, the thirteenth day of the disease. This is only a moderately severe case of typhoid, and I have no doubt she will do very well. She is very comfortable in the tank, and will tell you so herself.

March 15th, 1890.—Since I began this method of treating typhoid fever I have had seventeen cases of this disease under my care. Of these twelve have been treated in the tank and five I did not deem sufficiently severe to necessitate the employment of the tank. The mortality has been *nil*. I wish to take this opportunity of expressing my deep obligations to our very able house-physician, Dr. Quintin Wallace, whose services, unfortunately, we are now losing, and to our excellent staff of nurses, for the very careful manner in which this treatment has been carried out.

(To be concluded.)

ABSTRACT OF THE

Milroy Lectures

ON THE

ETIOLOGY AND PREVENTION OF PHTHISIS.

Delivered at the Royal College of Physicians,

By ARTHUR RANSOME, M.D., F.R.S.

LECTURE III.

THE PREDISPOSING CAUSES OF PHTHISIS.

WE shall have to-day to consider both the conditions that render individuals liable to contract the disease and some of the modes in which the parasite gains entrance to the body. It has been calculated by Bollinger that one phthisical person may eject from his body in the course of twenty-four hours no fewer than twenty millions of bacilli, and it must be remembered in connexion with this that phthisical persons go about like other people, mix in crowds, and discharge their bacillus-laden expectoration in every convenient place. The bacilli in dried-up sputum have been found to possess a marvellous tenacity of life, being still virulent after a lapse of six months; it is certain, therefore, that the germs of the disease are almost everywhere present, and that we all of us inhale some of them in the course of each day or week. Koch's observations show that the bacillus requires only a certain amount of moisture, a temperature of between 82° and 107°F., and a supply of nitrogenous food such as blood serum—all of which conditions are to be found within the body. The presence of phthisis, therefore, is not difficult of explanation; we should rather in the first place seek out the reasons for the exemption of so many from the results of infection. A condition necessary for the growth of the bacillus is that it requires a sojourn of one or two weeks, and sometimes more, in a suitable medium before it can "take root" and develop into a colony. The epithelium of the ultimate portions of the air passages is usually its first point of attack, and the organism must either effect a lodgment somewhere in this position, or it may perhaps make its way into the inter-alveolar lymphatics, entry into the latter spaces being easy even to inorganic particles, such as oxide of iron, silica, and carmine. Once planted in such soil it will find there a suitable temperature and ample supplies of the nourishment it requires. But in the healthy body there are various mechanical and physiological impediments which it is difficult for a bacillus to overpass; there would be great difficulty, for instance, to reach the ultimate air passages, for though the lungs, as Tyndall has shown, possess a sort of filtering action, due to the entangling of the dust by the mucous lining of the air passages, this action is not complete, as I have proved by microscopical examination of the aqueous vapour of the breath. In severe forms of lung disease accompanied by copious bronchial secretion the proportionate amount of organic substance exhaled from the lung in the aqueous vapour was only one-half that from healthy persons, the rest being taken up by the mucus before it could reach the mouth. The immunity from phthisis of many cases of chronic bronchitis and emphysema is perhaps due to this cause. The influence of a lessened mobility of the chest and the consequent partial stagnation of the air is shown in the tendency of the upper lobes of the lungs to tubercular deposit, and we may place in the same order of predisposing causes the evil results of a stooping or constrained posture during work. Perhaps the well-known tendency to tubercular infiltration of parts of the lung confined by pleuritic adhesions or consolidated by catarrhal pneumonia may be due to the facility afforded for a prolonged lodgment of the bacillus, and the same may be said of hæmorrhagic deposits in the lungs.

Another barrier to infection may be found in the vital processes carried on in the lungs. My own experiments with ozone in fifteen cases of phthisis seem to show that it has a distinct influence in enabling the system to tolerate the presence of these organisms and gain health and strength, in spite of their continuance in the body. The good effects of open-air life and of free ventilation are explained in the same way; the bacillus of tubercle, though not destroyed at once by these agents, yet seems robbed of its power for evil, and the same has been shown of other organised ferments. In any case, whether by simple oxidation or by the energy of other vital actions, such as the direct antagonism of phagocytic corpuscles, it is certain that the healthy human body has the power of disposing of a certain quantity of these creatures even after they have been directly injected into the system. With regard to the question of dosage, a certain concentration of the virus seems to be necessary before it can overcome the resistance opposed to it by the bulk of the population. Bollinger shows that very dilute solutions of sputum (1 in 100,000) and of cultures of bacilli (1 in 400,000) are virulent when injected into the peritoneum, but that much lesser dilutions were inoperative upon the intestine. In these researches the peritoneum remained sound in two-thirds of the cases, but the disease attacked the lymph-glands, spleen, and lungs. This observation shows that lung tuberculosis need not always depend upon inhalation, but may arise from virus that has been swallowed or injected. Bollinger also ascertained that whilst 800 bacilli when injected into the peritoneum are sufficient to cause the disease, smaller numbers than these become less certain in their operation. Thus up to a certain point the healthy body seems able to destroy or at least render innocuous the organisms that gain access into its interior, but there are probably great differences in this respect in different individuals. Certain diseases, such as mitral stenosis and gout or lithiasis, are supposed to confer an immunity to phthisis, and workers in copper and woollen goods are said also to be more exempt than other people.

Having considered some of the reasons for immunity, we must now inquire whether any reasons for infection exist. It has long been assumed that there is a scrofulous diathesis or tubercular constitution, and a peculiar configuration of the chest has been supposed to predispose to the disease. It seems highly probable that a certain form of chest, with insufficient expansive and expulsive power, may afford opportunities for the deposit of the tubercle bacillus; but, on the other hand, I have seen men of the finest physique fall victims to the disease. Few medical men who have been long in practice will doubt the existence of family predisposition to tubercular disease. Most of us have seen instances in which almost every member of a family had died of tubercle, and in other cases members of the same family living in different places have

[4] This patient made an excellent recovery. She was thirteen days in the tank.

most of them ultimately succumbed to it. Yet it is quite possible to make too much of this influence; and when we consult the statistics that have been put together on the subject, we find great differences in the results given by different observers, and in the figures no account is taken of the external circumstances, sources of infection from without, that are common to all members of the family. Again, since nearly half of all the deaths between the marriageable ages—from fifteen to thirty-five—are due to this cause, there would be nothing surprising in the fact that half of the consumptive patients have had consumptive relatives, unless the families were unusually large; and if we draw grandparents and collateral relatives into the statistical net, it breaks at once, and holds no solid conclusion. It is highly probable that heredity has less to do with consumptives than is commonly supposed; we must ascribe to it a much smaller influence than is usually given.

If we grant a real influence of heredity in predisposing to tubercle, there are at least three distinct modes in which it may be exerted—by the direct infection of the child with the disease in the active state, by the implantation of the organism or of its spores which may remain for a period latent in the system, and by the transmission of a constitution peculiarly open to attack by the bacillus. It is possible that each of these circumstances may occur, for we occasionally see cases of undoubted congenital tuberculosis, and the tuberculising power of the seminal fluid of tuberculous guinea-pigs has been proved. Lannelongue ascribes the rarity of early tuberculous infection to the conditions of resistance in the bodies of infants and children, which may have the power of keeping the virus in a latent state, and which may even prevent its development altogether; and Baumgarten states that tuberculosis may remain latent, under certain circumstances, during the whole of life without interfering with living functions in any observable degree. There is, however, no direct proof of this latter statement.

Of the three modes, probably hereditary influence is the most common. A tendency to contract other diseases than phthisis is not unfrequently transmitted from parents to children; for instance, our own Royal family have shown a peculiar proclivity to both typhoid fever and diphtheria. Much the same must be said of an hereditary tendency to consumption, but there is no more need to assume the existence of a tubercular constitution than of a diphtheritic or typhoid diathesis, and I believe that the transmission of an aptitude to contract it does not necessarily lead to the disease itself if care be taken to avoid the sources of external infection. Somewhat similar remarks must be made with respect to the influence of age, sex, and race upon the tendency to contract the disease. Up to puberty the mortality from phthisis is comparatively small, but after this age the younger residents in an infected house are often the first to succumb to the disease; the older members, the father and mother, escaping. Sex seems to have very slight influence, and all races also suffer more or less, though it is acknowledged that the negro, as well as the monkey, suffers grievously when transplanted from his own land. The influence of previous general diseases of the body, such as enteric fever, measles, and small-pox, is to leave behind a serious tendency to contract tubercular disease; this is either due to their debilitating influence or to the production of lesions of surface. But it is to previous affections of the lungs that we must look as the most common causes of bodily predisposition, many cases of phthisis being preceded by purely inflammatory diseases of the lungs, such as pleurisy, acute bronchitis, broncho-pneumonia, and imperfect resolution of ordinary pneumonic inflammation. In acute bronchitis, though the profuse secretion tends to entrap the germs, yet the detachment of ciliated epithelium leaves weak spots which facilitate their entrance into the system. Infection is still more likely to take place if from any cause the ultimate tissues of the lung become inflamed. There is, however, no necessary connexion between ordinary diseases of the respiratory organs and phthisis.

There are four possible modes of infection by the tubercle bacillus: it may gain access to the interior by the skin, the generative organs, the digestive tract, and the lungs. The few exceptional recorded cases of inoculation by the skin only serve to show the rarity of the occurrence. Infection by means of marital intercourse is also probably very uncommon. Tuberculosis has been produced in animals by feeding them with tuberculous material, and the question as to the suitability for food of the flesh of tuberculous animals is undoubtedly one of enormous importance, and extreme difference of opinion prevails as to the desirability of restricting the sale of tuberculous flesh. The experiments of Dreschfeld with the juice of the flesh of cows are interesting. Juice from animals with early tubercular disease gave negative results when injected into rabbits, but that from a cow in a more advanced stage of tuberculosis produced a small crop of tubercles in the rabbit's abdominal cavity, and material from this growth injected into another rabbit gave still more decided results. The evidence as to the transmissibility of tubercle by the ingestion of milk from tuberculous animals is much more distinct and positive, even when there was no evidence of general infection in the beasts; and when we consider the enormous amount of mesenteric and visceral disease that exists at the present day amongst young children, it becomes a matter of extreme importance to the State that the bearing of this evidence should be made widely known, and that it should be followed by measures directed to arrest the evil. Very numerous experiments show that there is great danger attending the consumption of milk from tuberculous animals, in whatever condition they may be, and whether or not the disease is localised only. But there are certain broad considerations which should, I think, prevent us from attributing much of the phthisis that prevails to either source of infection. The poor, who mostly suffer, very rarely take meat, and then they prefer it overcooked rather than underdone; and butchers and cooks, who suffer from tapeworm from picking at raw meat, are less liable than others to phthisis. The Hindoos, who abjure the meat of oxen, are as subject to phthisis as other races; and the Guanchos of South America, who subsist almost entirely upon beef, are remarkably free from the disease. So, too, the poor denizens of our towns are often unable to procure milk; but when they do get it it is more likely to be obtained from diseased animals, and also more open to contamination by tuberculous dust in the small milk-shops in which it is stored. The comparative rarity of the disease among the children of the rich, who consume it largely, and who will very seldom take it after it has been boiled, shows that the danger from this source is not quite so serious as it has lately been represented to be both in this country and on the Continent. The next medium through which the bacilli may be conveyed is the air. There is but little certain proof of the contagiousness of phthisis from mouth to mouth. In most of the cases of supposed direct infection all the persons were exposed to the same risks arising from unhealthy environment, and it is difficult to see why drainage of the land and elevation above the sea-level should in any way affect its contagiousness. As to the dissemination of phthisis by means of dust, it is well known that Koch regards this as the most common way in which this disease is produced, by the drying up and pulverisation of matter expectorated upon the ground or on the floors of dwellings or on handkerchiefs. This view was taken long before the discovery of the bacillus of tubercle, and it would fully account for most of the cases of supposed direct infection that have been recorded. The terrible mortality from phthisis that has been observed in convents is most probably to be accounted for by the combination of bad ventilation, want of perfect cleanliness, and care in the removal of sputum-laden dust.

We have now reached perhaps the most difficult part of our inquiry, as to whether any conditions outside the mere presence of the bacillus are necessary, or at any rate anxiliary, to its infective power. We still need an explanation of the facts that free ventilation is antagonistic to its influence, that its prevalence is greatly affected by a certain elevation of the site of dwellings, that it is more deadly and rapid in its action in hot damp climates, and that dampness of the subsoil under dwellings has a distinctly favourable influence in promoting its attacks. In many places where the good effects of free ventilation have been observed, greater cleanliness and more complete removal of dust and other refuse have come into operation. With an elevated site we probably have both more movement of air and less dust, and the healthy properties of such sites give to the dwellers upon them more power to withstand the bacillus. But if there is no condition outside the body that influences the viability or the virulence of the bacillus, it is very difficult to account for the comparative immunity of frosty or subarctic regions, and for the intensity of the tubercular action in hot or

tropical climates. Common inflammations of the lungs are not less rare in the tropics, and thus one source of the disease is not so frequently present; whilst in the cold regions where these affections are rife, phthisis is comparatively rare and much less virulent. It affords also no explanation of the influence upon such infection of damp subsoils, nor yet of the improvement in the phthisis rate which has been shown to follow thorough drainage of a town.

To account for these several points it is necessary to assume the existence of some condition accessory to infection by the bacillus, which shall either enable it to live longer outside the body or which may even increase its power of atttack. It may, indeed, be sufficient to account for the facts if we assume the first of these hypotheses to be true, and if it could be proved that a hot climate and a damp soil gave a longer term of life to the bacilli contained in foul and dusty air; but I am inclined to think that something more than this is necessary to account for the difference of the intensity of bacillary infection in pure air and in that reeking with organic vapours, and have therefore ventured to suggest that the tubercle bacillus, like some other infective microzymes, may actually take up an increase of virulence by a sojourn for a time in some medium external to the body; contact with a certain kind of organic matter may assist sporulation. It has struck me that a fresh infection of the lung in persons already suffering from phthisis is much more likely to take place from without than from within the body; many times I have seen in-patients with sputum teeming with bacilli improve in health, gain in weight, and almost lose the physical signs of their disease, and then they have returned home, and in a few weeks they have come back to the hospital, sometimes with fresh disease in the damaged lung, sometimes in the opposite lung that had been previously healthy, and sometimes with laryngeal phthisis. Such facts as these certainly seem to show that there was something in the air of their own homes much more infective than the bacilli of which they were themselves the hosts. The one fact that might seem to bear against this theory is the high temperature required for the development of the organism, but it is by no means proved that in cold climates the bacilli contained in damp and foul dwellings may not in some way increase their power for evil.

ON THE

THERAPEUTICAL USES AND TOXIC EFFECTS OF CANNABIS INDICA.

BY J. RUSSELL REYNOLDS, M.D., F.R.S., &c.,
PHYSICIAN IN ORDINARY TO HER MAJESTY'S HOUSEHOLD.

THE letter of "W. W.," in THE LANCET of March 15th, induces me to submit this communication on the therapeutical value of Indian hemp and the circumstances which have led to its having obtained a somewhat questionable character in our Pharmacopœia.

In 1848 Dr. C. J. B. Williams, in his lectures on medicine in University College, spoke of this drug as one from which he, after using it in many cases, had expected much, but it was so uncertain in its action, and its exhibition was sometimes accompanied by such distressing toxic effects that he had discontinued its use, and advised his pupils to do the same. Some seven years after this Mr. Peter Squire, the most distinguished pharmaceutist of the time, informed me that for at least three years he had been unable to obtain a good specimen of any preparation of the drug from India, or even to obtain the plant; strange things had been sent him, and other plants, but the former were bad, and the plants were not even of the same genus. However, he had recently been successful in obtaining the plant and in making an alcoholic extract and a tincture, with which he hoped I would make experiments. To this request I very readily acceded, and have made very numerous observations of its action from that time until now; and with this general result, that Indian hemp, when pure and administered carefully, is one of the most valuable medicines we possess.

In order to furnish the results to which I have been led by more than thirty years' experience of the drug, it will be well to arrange the maladies in which it has been either useful, or useless in the order to be followed in this paper; then to speak of its "uncertainty" of action, and of the methods to be adopted in order to avoid its toxic effects.

First, some of its most markedly valuable results are to be found in curious conditions of mind:—

1. *Mental.*—In senile insomnia, with wandering; where an elderly person, probably with brain-softening, in the "delirium form" (Durand-Fardel) is fidgety at night, goes to bed, gets up again, and fusses over his clothes and his drawers; thinks that he has some appointment to keep, and must dress himself and go out to keep it; but may be quite rational during the day, with its stimuli and real occupations. In this class of case I have found nothing comparable in utility to a moderate dose of Indian hemp—viz., one-quarter to one-third of a grain of the extract, given at bedtime. It has been absolutely successful for months, and indeed years, without any increase of the dose. In alcoholic delirium it is very uncertain: but has very occasionally been useful. In melancholia it is sometimes of service in converting the depression into exaltation; but I have long since discontinued its use, except when the case has merged into that of senile degeneration. In mania I have found it worse than useless, whether that malady has been chronic or acute. In the occasional night restlessness of patients with "general paralysis," and in those of "temper disease" (Marshall Hall), whether in children or adults, it has proved of eminent utility.

2. *Sensorial.*—In almost all painful maladies I have found Indian hemp by far the most useful of drugs; and it is especially so in those cases which are, to the present time, relegated to the "functional" order. Neuralgia, periodic or not, has often yielded to cannabis indica—pure and simple, no other treatment being given,—after ten, fifteen, or twenty years' duration. This result has been obtained most frequently in facial pain. In one case (University College Hospital) a man, with neuralgia of the lower branches of the nerve, had lost two stone in weight during four years, from inability to take food, except by fits and starts; his pain had been present for eighteen years, and had resisted every kind of treatment that had been adopted, but was relieved completely after two days of hemp treatment, and the trouble never returned. Very many like cases, of varying duration, have been found equally amenable to treatment. Neuritis: Indian hemp here is only useful in conjunction with other treatment, but it is a most valuable adjunct to mercury, iodine, or other drugs; as it is in neuralgia when given together with, when required, arsenic, quinine, or iron. Migraine: Very many victims of this malady have for years kept their sufferings in abeyance by taking hemp at the moment of threatening, or onset of the attack.

I have found Indian hemp almost useless in sciatica, and in myodynia, whether in the neck, the thorax (pleurodynia), or the back (lumbago, sacralgia). The pains that occur only on movement do not, so far as my experience extends, receive any relief from its administration; and I say this after having tried it in full doses in very many cases and during many years. Again, it has proved, in my experience, useless in cases of gastrodynia, enteralgia, tinnitus aurium, muscæ volitantes, and almost all the so-called "hysteric pains"; whereas, on the other hand, it has relieved the lightning pains of the ataxic patient, and also the multiform miseries of tingling, formication, numbness, and other paræsthesiæ so common in the limbs of gouty people.

3. *Muscular.* — In clonic spasms, whether of epileptoid or choreoid type, I have found hemp very useful. For example, in the eclampsia of children, or of adults, whether from worms, teething—first or second dentition, or the cutting of the wisdom teeth—in a very large number of cases I have relied, and successfully, upon it alone. In true, chronic epilepsy I have found it absolutely useless, and this as the result of very extensive experience. There are many cases of so called epilepsy in adults, but which, in my opinion, are either eclamptic, or the result of organic disease of a gross character in the nervous centres, in which Indian hemp is the most useful agent with which I am acquainted. Such cases, for instance, as attacks of violent convulsions (epileptoid in every actually present symptom) in an overfed man, who has had a heavy supper, and is attacked two or three hours afterwards while asleep, and whose attacks may recur two or three times in the hour, for a day or two, in spite of "clearing the *primæ viæ*," bromine, and other drugs, but whose fits may be stopped at once by a full dose of hemp.

Again, there are cases of brain tumour or other malady in the course of which there occur a series of epileptiform convulsions, followed by coma, and coma by delirium,

at first quiet and then violent, the delirium time after time passing into a renewed convulsion and repetition of events; and this may go on for hours, or even days, in spite of any other treatment, and yet yield at once to Indian hemp. Further, with regard to genuine epilepsy and allied affections, I have found this, that Indian hemp has been, on the one hand, useful only in those cases where the diagnosis has led me away from a belief in the presence of the really classical disease, to the suspicion of organic lesion or of eccentric irritation; and, on the other hand, entirely useless, when there is no doubt of the nature of the malady. In many cases of genuine epilepsy, where attacks of petit mal are exclusively present and very frequent, and have been so for years, I have given Indian hemp in gradually increasing doses until some slight toxic effect is produced; but have never found it to reduce either the frequency or severity of the seizures, or to materially affect their character. In tonic spasm, such as torticollis and the like, in writer's cramp, in general chorea, in paralysis agitans, in the jerking movements of spinal sclerosis, in trismus, and in tetanus, Indian hemp has proved in my experience absolutely useless; but at the same time it is a most valuable medicine in the nocturnal cramps of old and gouty people; it in some cases relieves spasmodic asthma, and is of great service in cases of simple spasmodic dysmenorrhœa.

Second, in explaining the occasional toxic effects of Indian hemp, two things must be remembered:—

1. That the drug is one which, by its nature and the forms of its administration, is liable to great variations in strength. For practical purposes, its active principle has not been separated, and extracts, as well as tinctures made from the extract or from the plant, cannot be made uniform; because the hemp grown during different seasons, and in different places, varies in the amount that it contains of the therapeutic agent. It is desirable, therefore, that it should always be obtained from the same source, and that a minimum dose should be given to begin with, and that the dose should be very gradually and cautiously increased.

2. That individuals differ widely in their relations to many medicines and articles of diet, and perhaps to none more widely than to those of vegetable origin—such as tea, coffee, ipecacuanha, digitalis, nux vomica, and the like; and therefore, in addition to securing purity of drug, the possibility of idiosyncrasy should be borne in mind, to emphasise the need of caution, in the first administration of Indian hemp. By habituation and gradual increase of the dose, two, three, or even four grains of the extract may be taken not only with impunity, but with advantage; but such a dose as one grain would, so far as my experience goes, be attended with toxic effects in the majority of healthy adults. I have seen them in mild form from one-third of a grain, and very rarely from one-fourth, but have never known them arise from one-fifth. Therefore, for an adult I always give one-fifth or less to commence with, and for a child one-tenth. The best, because most convenient, form for administration is the tincture. Pills often become hard and insoluble, and their strength cannot be so readily and so gradually increased. The tincture, if suspended by mucilage, is apt to separate in the mixture that contains it, and thus the doses become uneven. Therefore, during many years I have given it with instructions that the dose required should be taken in drops on a small piece of sugar or bread. The tincture of the Pharmacopœia contains one grain in about twenty minims, and this is convenient for use with children; but for the adult, where a gradually increasing dose is required, a tincture with a strength of one grain in ten drops is more useful. The dose should be given in minimum quantity, repeated in not less than four or six hours, and gradually increased by one drop every third or fourth day, until either relief is obtained, or the drug is proved, in such case, to be useless. With these precautions I have never met with any toxic effects, and have rarely failed to find, after a comparatively short time, either the value or the uselessness of the drug.

It is no surprise to me that "W. W." should have suffered as he did, and which he so accurately and graphically describes, from the dose that he had taken; nor does it astonish me that his friend, possessed of a different idiosyncrasy, could have taken it with impunity; and the object of this communication will be attained if, by giving my experience of the great value of Indian hemp, my brethren may be deterred from abandoning its use by any dread of its causing "toxic effects," unless it be given in a "toxic" dose.

RETROVERSION OF THE GRAVID UTERUS; DEATH FROM RUPTURE OF THE BLADDER AND PERITONITIS.

BY THOMAS OLIVER, M.A., M.D., M.R.C.P.,
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I VENTURE to lay the following notes before a section of the readers of THE LANCET, believing that they will prove of interest to many young practitioners whose attention may not have been directed to a mode of death which occasionally supervenes in the course of pregnancy. The case is one to which I was called in consultation by a medical friend a few miles from Newcastle. The patient died about two hours before I reached the farmhouse which she and her husband had occupied.

Mrs. C. H——, aged thirty-six, a delicate woman and the mother of four children, took ill on the 27th of June, her complaint being vomiting accompanied by pain in the abdomen. She was seen during the course of the day by her medical attendant, to whom was given the history of a five months' pregnancy, and by whom the ordinary medicines used in these cases to allay sickness were ordered. On the following day her condition was worse; the patient looked ill, the vomiting and pain in the abdomen had not been relieved, the abdomen was distended more than the asserted period of pregnancy accounted for, and it was more generally tympanitic. The diagnosis was peritonitis complicating pregnancy; and although the illness was regarded as grave by her medical attendant, it did not suggest itself to him as one likely to terminate fatally on the following day. The 29th of June found her in a condition worse than ever. For the first time he now learned that no urine had been passed for more than twenty-four hours. Thinking that the pain in the abdomen might be associated with the processes of labour he made a vaginal examination, but failed to find the os uteri. The patient was now in a state of collapse, and was evidently dying from peritonitis, the cause of which was obscure.

Although the patient was dead when I reached the house, the doctor was very anxious that I should make a vaginal examination, in order to appreciate the difficulty he had experienced in trying to reach the "os." Cadaveric rigidity had already set in. There was considerable difficulty to the passage of the finger into the vagina, owing to the fact that the posterior wall was nearly driven out of the vulva, the cause of the displacement being a soft cyst lying behind it. The finger gliding in in front of this passed at once up behind the pubis, but no "os" could be felt. It was quite clear that the cyst-like body was part of a displaced pregnant uterus, the "os" of which had been lifted upwards and carried high above the pubis. Consent to a post-mortem examination was readily obtained, and this we made on the following day.

On opening the abdomen there escaped a quantity of thick brownish fluid, which smelt strongly of putrefying urine. About a pint and a half of this fluid was afterwards found in the abdominal cavity. When the walls of the abdomen were reflected, there was brought into view a bluish-red surface extending from the pubis up to the level of the umbilicus. It looked at first as if it was the outer surface of a distended pregnant uterus. It was at places firmly adherent to the abdominal parietes and intestines. This turned out to be the outer surface of an elongated, flattened, and ulcerated bladder, from which, by enlarging one of its perforations, I removed several ounces of the thick brown foul-smelling urine already described. Posteriorly the elongated and flattened bladder was firmly adherent to a large cyst-like body, the size of a child's head, which, passing downwards and backwards, occupied nearly the whole of the pelvis, and, continuing downwards into the vagina, had thrust before it the posterior wall of that passage. With considerable difficulty I raised this, and found it to be an enlarged pregnant uterus containing a five months' fœtus. How, then, are we to account for all this? The bladder had towards its fundus formed adhesions with the intestines and abdominal walls. On cutting into it, its walls were found to be extremely thick at some places, and remarkably thin at others; especially was this the case towards the fundus anteriorly, where there was an area about an inch and a half square, extremely attenuated, perforated, and sloughing. The intestines were generally

hyperæmic, and numerous flakes of lymph lay upon them. The liver was healthy, as were also the other organs of the abdomen. The cause of death was evidently perforation of the bladder and peritonitis. What part did the retroverted uterus play? The prominent symptoms were abdominal pain and vomiting, with retention of urine; and if we had only the post-mortem appearances to guide us, it would be difficult to say whether these were the result of the uterine displacement, or whether the first two of these symptoms had depended upon peritonitis, and the frequent vomiting, with its attendant straining, had induced the displacement of the gravid uterus.

We got the following history. Less than a month prior to this Mrs. C. H—— had been out walking some distance from home. All at once, she said, she "felt something drop in her inside." She walked a few steps further, but was obliged to sit down and wait until a conveyance was brought to take her home. For a few days she was confined to bed, and attended by a neighbouring practitioner. She recovered so far as to be able to resume her household duties, but only to have a return of pain and vomiting. Not improving under treatment, she exchanged her medical attendant for the one by whom I was called to the case. He therefore only saw her for the first time within three days of her death, and he tells me that at that time there was no retention of urine, but a constant desire to micturate. A small quantity of urine only was being passed, and that with very great pain.

Denman attributed retroversion of the gravid uterus to distension of the bladder. Barnes and Playfair are not inclined to accept this as the usual explanation, nor do I see how such a cause unaided could act. Severe straining or injury operating at a time when the bladder was inordinately distended might induce displacement. Seeing how frequently displacement of the non-pregnant uterus occurs, it is astonishing how very seldom obstetricians meet with retroversion of the gravid uterus. In most of these cases pregnancy has arisen in the retroflexed organ, and the tendency is, as the pregnancy advances, for the uterus to right itself, although now and then the fundus doubtless gets caught by the promontory of the sacrum. Retroversion in such would therefore be in existence from the first, but no symptoms to any extent would be experienced until the uterus grew too large for the pelvis and began to press upon the bladder and rectum. Then would arise such symptoms as pain, retention of urine, tenesmus, and vomiting. Now that is scarcely the history of our case. We cannot overlook in the history of the case the walk, the sudden and sharp pain, the feeling as if something had all at once dropped in her inside—symptoms which made further progression a matter of impossibility to her, and which are more in keeping with a sudden displacement, such as prolapse of a pregnant uterus or a retroversion of it. Such an event occurring at a time when the bladder was distended would be associated with a backward and downward direction of the fundus, and the weight of the intestines bearing upon the anterior surface of the womb would roll the fundus towards the sacrum and at the same time raise the os upwards and forwards behind the pubis. Once this is accomplished the straining which vomiting causes would tend to wedge the uterus still further downwards and outwards. In our case it would appear as if these had aggravated the displacement. The uterus had descended and had been driven downwards with considerable force, dragging and pressing upon the bladder, which, already adherent and thinned at places, had become perforated, leading to extravasation of urine, collapse, peritonitis, and death. I am inclined to think, therefore, that there was a considerable element of suddenness in the retroversion of the gravid uterus in this case, and from the difficulty which I experienced in trying to lift up the retroverted organ with my hands in the abdominal cavity, I can appreciate the severity of the task which would have been undertaken by any obstetrician in his attempt to have replaced it by the vagina during the life of the patient. Reduction of the bulk of the uterus by withdrawal of liquor amnii through the "os" if it can be reached, or by puncture through the uterine wall, is a procedure that may have to be undertaken by those who are unfortunate enough to meet with such a case. Before resorting to this, however, emptying the bladder by means of the catheter should be tried, for such simple treatment combined with rest in bed has been followed time after time, not only by a disappearance of serious symptoms, but by a rectification of the displacement.

Newcastle-upon-Tyne.

TROPICAL LIFE AND ITS SEQUELÆ.

BY SURGEON-GENERAL JEFFERY A. MARSTON, M.D., C.B., M.R.C.P., &c.

(*Concluded from p. 590.*)

MORE or less anæmia, like debility, occurs, of course, after every ordinary, or every serious or protracted illness, but it is more observable in hot climates, because in the case of a febrile attack, for example, the deteriorating effects of the fever heat have been supplemented by those of climatic heat. Anæmia embraces a wide range of degree. It is not necessary to dwell upon those simple forms which occupy a sort of borderland between health and disease; nor is it my intention to speak of the anæmia which may be reasonably expected to ensue in consequence of previous sickness, or of that which can be accounted for by the presence of some organic or other disease; but rather of those varieties in which anæmia seems to be *the* disease—cases in which it may be regarded as primary and not secondary in character. The number of individuals that appear in the course of a few years before medical boards who are suffering from different varieties and degrees of anæmia is considerable. There is no very clear practical line of demarcation between the simpler and graver forms—that variety of essential anæmia, for instance, which is progressive and generally fatal. The graver kinds of climatic anæmia, those which in some degree mimic the pernicious variety, differ from the latter in some important respects. In regard to age (the sufferer from climatic or tropical anæmia may be of any age); he differs in not having the peculiar yellow, waxy, cachectic appearance; in the absence of retinal hæmorrhages; and in his recovering, instead of the disease progressing to a fatal issue as in the pernicious form. The sufferers from climatic anæmia are often young men; they do not, as a rule, exhibit signs of much wasting, but they are often very debilitated; there may or may not (generally not) be signs of structural heart disease. The motions are usually natural in colour; the urine, though of low specific gravity, is rather high-coloured than otherwise, and the amount of urea is relatively large, which would point to increased hæmolysis. The anæmia is not so much due to a diminution of quantity as deterioration of quality of the blood. I have no observations, however, as to the extent to which the red corpuscles had decreased, nor any regarding an increased quantity of iron in the hepatic tissue. As to the pathology of this climatic anæmia, whether it has any points of identity or close alliance with that of pernicious anæmia or not, I have no special information.

It is astonishing how anæmic some individuals become after residence in hot climates, without having actually had any disease to account for it. They may or may not have suffered from intermittent fever, but they have commonly been exposed to malarious influences, although, as a rule, there is no marked splenic or hepatic enlargement. Some of these cases exhibit slight febrile disturbances—that is to say, the evening temperature reaches 100°.

There is one factor always present in the medical history of the cases under review; they have all been exposed to the effects of climatic heat. It is very difficult, if not impossible, to apportion the influence of the separate causes or conditions present; but the patient need not necessarily have been exposed to malaria. Even where climatic heat seems to have been the cause of the anæmia, it is difficult to say how much was directly attributable to heat *per se*, and how much to the constitutional depression, increased perspiration, diminished appetite, and depressed digestive and nervous functions caused by it.

An officer of about forty-five years of age, after having spent some years in the plains of India, and enjoyed excellent health, went to Simla. At the latter station he began to lose strength, weight, and colour without any appreciable disease. There was no history of his having suffered from ague, still, I suspected that a malarious cause was at the root of his symptoms. After a time he noticed that he became subject to an attack of vomiting daily in the morning whilst his stomach was empty; the vomited matter consisted entirely of a small quantity of bile, never of food. There was no fever, the tongue was clean, the appetite good; physical examination elicited nothing; his bowels were regular, but rather loose; urine acid, non-albuminous, free of

sugar, generally of rather low specific gravity, and of somewhat high colour. I had the curiosity to compare the amount of urea it contained with that of a healthy individual, after making the specific gravity of the two samples of urine the same. I found the urea in the former somewhat in excess. This officer's health went from bad to worse; he became extremely pallid and much wasted, and was sent home in a very grave condition of health. After some considerable time he began to improve in this country, under the influence of the change of climate, quinine, arsenic, and iron, and good living with plenty of bottled stout; and his health eventually became fairly re-established, but not quite.

The condition of an officer whom I saw after he had returned from Egypt, where he had enjoyed excellent health, notwithstanding that he had been exposed to much hardship and extreme heat, resembled that of a very chlorotic girl. He had never suffered from fever of any kind. But for his anæmic appearance and for a train of nervous symptoms—very much like that already described—there was nothing wrong with him. At first remedies appeared to have no beneficial effect, but after some months spent in this country he gradually improved, and ultimately quite recovered. His treatment, in addition to remedies to improve his digestion and regulate his bowels, consisted of preparations of iron and arsenic, good food, and a liberal allowance of wine with it.

There are some morbid states of constitution induced by residence in tropical or semi-tropical climates that are noteworthy in this connexion. One is a condition resembling, and constantly mistaken for, scurvy or purpura. It has nothing to do with the former disease; the sufferers have had plenty of fresh vegetables in their dietary. It is, in reality, somewhat allied pathologically to the hæmatogenous forms of jaundice occasionally witnessed in malarious subjects, or to that condition which produces congestive paroxysmal hæmaturia, with the débris of red corpuscles in the urine, and to disordered constitutional conditions, running up in order of gravity to those forms of remittent fever accompanied by jaundice or hæmatinuria respectively, or with icteric urine combined with jaundice and hæmatinuria, and disintegration of the red blood cells.

There are several undetermined points of great interest connected with the relation of bile and bile pigments to digestion, blood, and urine. Only a very small part of the bile which is daily poured into the intestine leaves it in the alvine evacuations; and the exact nature of the interchanges between the fluid contents of the bowel and the blood, and the subsequent metamorphoses and disintegration of the blood cells in relation to the bile and urine pigments, have yet to be satisfactorily determined. But their consideration is quite beyond the scope of a clinical paper.

The subjects of anæmia may have suffered or not from some of these diseases whilst resident abroad. They are anæmic-looking, somewhat wasted, and generally suffering from atonic dyspepsia; the gums look spongy, and the tongue is occasionally red, raw, and sore looking at the edges; the circulation is weak, the extremities feel cold, and the patients suffer much from the cold of winter and spring after their return to this climate; occasionally there are ecchymotic spots on the skin, and they "bruise" easily. The heart's action is weak, but the sounds are clear and normal. The urine is acid, non-albuminous, and normal as regards specific gravity. It occasionally happens that these patients suffer from hæmoglobinuria, particularly the paroxysmal variety, after exposure to cold and wet, or after great fatigue. There are no physical signs of disease of the liver or spleen in these cases. When these symptoms are attributable to disease acquired in tropical climates, the patients recover in process of time by residence in this country. They appear to do better at inland places than by residence at the seaside, and are benefited by steel, arsenic, and large doses of pepsine with vegetable bitters, provided attention be given to regulating the bowels, and for this purpose saline purgatives should be avoided, but remedies like iridin or euonymin, in combination with rhubarb, or aloes and ipecacuanha, are well adapted. They are the better for a good varied diet, with Burgundy or Australian wine, and, if warmly clad, by open air, but they are unequal to much physical exercise.

Some of these cases are of a mixed kind: the anæmia is the result of diarrhœa or of the condition known as "psilosis" or "sprue," or some complication is present, in which case great care may be required in the diet and a rigid adherence to milk may be essential, or the complication, whatever it may be, will require special treatment; and I have even found small and repeated doses of the extract of opium to act as a tonic and nutriment. Many years ago I was consulted by a middle-aged officer who had been in the Abyssinian War and much exposed to the heat of the Red Sea. A little more than a year afterwards he noticed that he was gradually getting much paler and slowly, almost imperceptibly, losing strength, but not flesh. At the time I first saw him he was bloodless-looking; his lips and mucous membranes were almost as pallid as his face, and the anæmia was peculiar—of a dirty yellowish waxy kind, resembling that of a dead leaf. He noticed that his appetite for meats and nitrogenous articles of food had gradually declined until it finally disappeared. His case appeared to me to be one of well-marked progressive pernicious anæmia. Nothing did him any good and everything was tried, and he soon died. My friend Dr. Samuel Fenwick, who was kind enough to see him, had an opportunity of examining the stomach after death, and he told me that the condition was one of marked atrophy, the gastric glands having for the most part altogether disappeared. I allude to the case, because it seems to illustrate the points of difference between the pernicious form and other varieties of anæmia, although it apparently had a climatic origin.

As regards the condition known as "psilosis" or "sprue," in which an intestinal disorder attended with a chronic and peculiar form of diarrhœa forms the most characteristic feature, we are in great need of precise information about its morbid anatomy and the results of a thorough investigation of the morbid lesions attending it. It is a common disease in India, China, and elsewhere. It sometimes appears to be the result of a more or less depraved state of health induced by long tropical residence, and begins insidiously as a looseness of the bowels, which at last amounts to diarrhœa—a diarrhœa that proves to be of a very chronic kind; sometimes it begins on a change from the hot plains of India to the cold climate of the hills in individuals whose health and constitutional powers have been lowered by residence in the former, although they may never have been sick there; sometimes it dates from an attack of hill diarrhœa.

En passant, I may remark it has always seemed to me that there are at least two kinds of so-called hill diarrhœa. One might be termed "physiological." A man leaves a climate where the action of the skin is excessive and out of all proportion to that of other organs, and where the appetite is at a minimum, and the daily amount of urine passed is extremely small. He goes to the hills, and in the course of a few hours arrives in a cold climate. The blood is determined to the internal organs and mucous membranes, and their increased physiological activity has to make up for the inactivity of the skin. The change is a sudden and remarkable one, to which the system has to accommodate itself, and it is no wonder that he gets affections of the liver, diarrhœa, and diuresis. A Turkish bath at large hill stations would be an excellent institution, and the use of it by individuals newly arrived from the plains would in all probability save them from much sickness. The other form occurs frequently as localised epidemics, some of which would prove most interesting and profitable studies in epidemiology and pathology. The prevalence of diarrhœa in some of these outbreaks has no more to do with the drinking water or milk than these have to do with the prevalence of influenza. It is quite possible, however, that their occurrence may be attributable to the presence of some pathogenetic germ. The phenomena attending one of these outbreaks are not inconsistent with that assumption, and the administration of minute doses of perchloride of mercury sometimes proves very efficacious.

But to return to the subject of "psilosis" and chronic diarrhœa (the "diarrhœa alba" of old writers), for the two diseases, although very similar, do not appear to be perfectly identical. Psilosis, for one thing, seems to affect more women than men; whereas, with tropical diarrhœa, which so frequently begins as a hill diarrhœa, it is the reverse. The first symptom is abdominal tympanites in the early morning, which passes off after the bowels have been relieved of a copious and soft evacuation; but the symptoms soon become more urgent, and the patient on awaking has to relieve his bowels at once, passing very copious, light-coloured, frothy evacuations. Once the disease is established, it is liable to go on and is very difficult of control, especially if the patient is not extremely careful as

to diet, restricting himself, in fact, to a milk diet. Sometimes it is not until the patient has left India and gets on shipboard on the voyage home, or after his arrival there, that he suffers from this diarrhœa.

There is no need to describe the stages and symptoms of either "psilosis" or tropical chronic diarrhœa. They are well known. Those of "psilosis" or "sprue" have been fully described by Dr. Manson, Dr. Thin, and others; and Sir Joseph Fayrer has discussed the subject of diarrhœa generally. The patient may go on suffering for some time, until he becomes much emaciated, enfeebled, and anæmic. The stools, at first large, yeasty, and frothy, become like dirty mortar or cream, and undigested articles of diet may frequently be detected in them. The frequency and amount of the alvine discharges increase, and the appetite generally becomes voracious.

The results of a post-mortem examination in one case were:—The liver was pale and atrophied, like the rest of the body, and the gall-bladder empty. The fact was that the liver had nearly ceased its functions for want of blood. The coats of the intestines were very thin and pale, almost diaphanous; the glands generally atrophied, except the mesenteric glands, which were comparatively large; the mucous coat of the small intestine seemed to have lost much of its epithelium, and I can remember that the greater part of the intestinal tract, especially about the villi and atrophied glands of the small intestine, gave an amyloid or lardaceous reaction to the iodine test—a phenomenon which I have since learnt, on Sir William Aitken's authority, is not at all uncommon in cases of chronic diarrhœa. In the case of a child who died at Malta a considerable time after it had apparently recovered from an attack of typhoid fever, the same effects, together with the thinning and atrophy of the intestines, were observed as in the fatal case of chronic diarrhœa.

As regards the treatment of these cases, it may be summed up in one word—milk. The patient and his attendant must make up their minds to adhere to a milk diet. Sometimes fresh milk suits better than boiled, sometimes the reverse; sometimes, and as a temporary measure, only peptonised milk will suit. As progress is made other things may be carefully tried. Pepsine in large doses often proves very useful, and occasionally opium, and I prefer the use of the extract of opium in half-grain doses frequently during the day, or Captain Jeremy's preparation, or the liq. opii sedativ. Alcohol in any form is usually injurious. But there are some cases of chronic diarrhœa which do not fall exactly within the category of those described, and milk either does them no good, or the patients even rapidly lose weight and strength on it.

It is not always possible in practice to tell beforehand the cases in which milk will not be productive of any benefit, but they are mixed cases and non-conformable in all respects to the foregoing description. The patients bring a history of long residence in a tropical or semi-tropical climate; they have either suffered from malarious fever or been exposed to malaria, but their health has been fairly good until their arrival in England. Shortly after this they begin to go through a process of acclimatisation, and the effects of conditions to which they had been elsewhere exposed also begin to manifest themselves. Their organs are sound; the tongue is clean, though perhaps looking rather red and raw at the edges; the gums are possibly tender, and look spongy; the appetite is good; but they become the subjects of more or less chronic diarrhœa, attended with abdominal fulness, followed by loss of flesh and strength and anæmia. The motions are rather too copious, loose, and light-coloured, but are not those characteristic of "sprue," or dirty white and creamy. The urine is of low or average specific gravity, high-coloured, and containing an excess of urea, and sometimes giving an indication of the presence of indican. The digestion is impaired; the sufferers sleep badly or too much, and the sleep does not refresh them; they are rather irritable and despondent. Now, time is the great and important element in these cases. They do best by residing in the country, where it is dry and warm, but not close to the sea, and they should be warmly clad. Milk and meat juice and essence of beef; a limited allowance of fluids, especially of hot fluids, the avoidance of hot soups and vegetables, particularly potatoes, should be enjoined, but cauliflower and a little ripe fresh fruit occasionally do good.

As regards drug treatment, the use of opium in small and repeated doses is commonly very beneficial. Orezza water is useful as a drink, and later on, as soon as the patient can take them without irritation, Blaud's pills are very useful, together with a good French Burgundy (Chambertin) or a sound Australian Burgundy. In the earlier stages the patient's condition requires a careful, unirritating, bland diet, and alcohol and tonics cannot be taken; and occasionally even a mild aperient, with euonymin or iridin to stimulate the hepatic function, may prove useful. But, do what we may in these cases, they are going through a process of acclimatisation in a new climate, and the constitution is also gradually ridding itself of the effects of prejudicial conditions acquired in the old one; and time, sometimes a year or two, is essential to their perfect recovery.

A few words in conclusion about albuminuria. It is not at all uncommon to find albumen in the urine—and occasionally in rather considerable quantity—of persons who have returned from the tropics, in the subjects of malaria, and in those who have suffered from climatic fevers. Its presence has not the same significance that it has under other circumstances. Provided casts are not present, the albuminuria generally disappears in time and the patients recover.

Nevern-square, S.W.

PAROXYSMAL HURRY OF THE HEART.[1]

BY SAMUEL WEST, M.D., F.R.C.P.,

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THE affection which the above title is intended to describe is not, according to my experience, common, and its literature is scanty. The most important contribution to the subject with which I am acquainted is an article in the tenth volume of *Brain*, written by Dr. Bristowe, who describes the affection as "recurrent palpitation of extreme rapidity in persons otherwise apparently healthy." In a typical case the patient, who is usually between thirty and forty, is suddenly seized with an attack in which the heart acts with very great rapidity, beating often from 200 to 300 times in the minute. There may be no other symptom than this so that the patient is in no way incapacitated, but equal to all the usual work, and even capable of considerable mental and bodily exertion. More commonly there is associated with the rapid action of the heart more or less violent palpitation, and at times also cardiac pain, both of which symptoms may be so severe as to completely invalid the patient for the time. The attacks frequently come on without any assignable cause, though they may be produced by worry or work; but when the attack is past the patient is able to continue business, and is not incapacitated unless the attacks recur with great frequency. The paroxysms vary in duration from a few minutes, it may be, to several hours, or even occasionally days, while the intervals between them vary also irregularly. An attack is rarely constituted of only a single paroxysm, and the interval between the attacks is as irregular as that between the paroxysms. Months or often years elapse, so that the patient may seem cured. The general tendency, however, is for the intervals to diminish and the attacks to increase in frequency.

Although in some cases organic disease of the heart exists, in the majority there is no definite evidence of organic lesion. During the attack, it is true, the apex may be displaced, the cardiac dulness increased, and murmurs, sometimes of great intensity, may be audible; but all the physical signs usually disappear when the attack is over, and no signs of cardiac lesion persist. Dr. Bristowe is further of opinion that none is present, and refers the hypertrophy and dilatation that sometimes occur to the recurrent palpitation. This view is supported by the result of the only post-mortem examination which is recorded among his cases. Still, as I shall state later, the evidence seems to my mind strongly in favour of some organic lesion, probably muscular rather than valvular. However this may be, many of the cases die with cardiac symptoms: some suddenly, as if of cardiac syncope; others of gradual cardiac failure, and that too in cases where there is no evidence of valvular lesions.

The evidence is not yet sufficient to determine the usual course of the affection. My own impression is that many cases recover, and certainly many years may pass by without any return of the symptoms. However this may be, the affection is one which is compatible in many cases with

[1] Paper read before the Medical Society of London March 10th.

active work for years. With this introduction I will pass to the cases which I desire to record.

CASE 1. *Palpitation; pulse often 200, frequently without assignable cause, greatly controlled by nitrite of amyl; temporary musical murmur, sometimes heard at a distance from patient; no definite cardiac lesion; history of rheumatic fever; recovery.*—Andrew K——, aged thirty-three, a railway porter, presented himself at the hospital complaining of palpitation of the heart and shortness of breath. He looked ill; his pulse was hardly to be counted, but it was not less than 200. No cardiac murmur could be heard. The patient was at once admitted, and after being in bed a short time rallied. On the next day (June 7th) the following note was taken: The patient is a tall man, well developed, but with rather flabby muscles. Pulse 144, regular, and not of abnormal tension; respirations 24; no dyspnœa or cyanosis; temperature 99·6°. Forcible pulsation is visible over the præcordium in the epigastrium and in the large vessels of the neck and arm. The heart's apex is seen and felt in the sixth space one inch outside the nipple line; a thrill is felt over the whole præcordium, but most strongly at the apex. The cardiac dulness reaches up to the second space, but is not increased to the right. A loud musical systolic murmur is heard at the apex as loud as the voice over the trachea. It is audible twelve inches from the chest, and is heard occasionally by the patient, who describes it as like the rubbing together of two bricks. He says it has been heard also by his fellow-lodger lying in the next bed. The murmur is loud over the whole chest, but though heard in the large vessels near the thorax it is probably not propagated through them, but along the bony framework. The sounds at the base are distinct, and there is no evidence of aortic disease. At the apex the murmur is so loud as to cover the sounds up, but within it the sounds, though weak, are audible. (The murmur did not correspond with any of the ordinary valvular murmurs, and the opinion was hazarded that it was dependent on the dilatation.) There is a slight trace of albumen in the urine, but no œdema. There are one or two small tophi in the helix of each ear. As already stated, no murmur was audible at the time of admission. The patient gave the following history:—He is one of six children, all living and strong; father and mother both living and well, but rheumatic. He was well and strong until the age of twenty-six, seven years ago, when he had rheumatic fever, from which he was laid up for six weeks. At that time he had some pain in his heart, and the præcordium was blistered. After the attack was over he remained perfectly well until Christmas of 1888, when he began to notice slight palpitation for the first time, but he remained at work till the end of April. For the last ten days the palpitation has been much worse, and brought on by the slightest exertion. Except during the attacks, he has no pain or shortness of breath. He states that during the last three weeks he has occasionally heard the noise in his heart when in bed, and that his neighbour in the next bed has heard it also. He refers the onset of his illness at Christmas to worry and nerve shocks, and to the drinking to which they led him. He had had but little work to do for twelve months before.

He was kept absolutely at rest in bed, and placed upon a mixture containing digitalis and iron, with some tincture of nux vomica. On the 8th the heart was quieter, 124, and the murmur could not be heard away from the chest. On the 9th the pulse was 96, and the digitalis was omitted. On the 11th the murmur varied a good deal at different times, and on the 15th disappeared. Between the 9th and 16th he had several slight attacks of palpitation, lasting for a few minutes each. On the 22nd an attack lasted for thirty-five minutes, but it was allayed by the administration of fifteen minims of digitalis and some ether, which had cut short many of his previous attacks. On the 25th, and again on the 29th, he had a bad attack, which lasted for an hour and a half. During all this time he had a feeling of oppression in the præcordium worse than he had ever felt before. On July 2nd, as the digitalis seemed to be losing effect, nitrite of amyl was given with almost immediate relief. On the 12th an attack came on during sleep at night, and as the nitrite of amyl did not check it, a subcutaneous injection of morphia was given, with relief. The pulse was only 116, but the musical systolic murmur was heard faintly for a time. On the 15th, in a similar attack, the murmur was heard by the patient himself and also by the nurse a few inches from the chest. On the 16th an attack, accompanied by the musical murmur and thrill, came on, which was checked neither by nitrite of amyl nor by morphia, but stopped all at once suddenly of itself. The pulse was not rapid at the time, being only 88, but the next day it was 132. On the 19th the most severe attack since admission occurred. It came on quite suddenly, while the patient was slowly dressing himself to get up for tea, as he had been allowed to do for some days. It developed at 4.30, and a tablet of nitro-glycerine was given without effect. When seen at 5 o'clock the heart was beating at about 250 to the minute. A sharp ringing sound was heard at the apex with each beat, but no murmur. The patient did not seem very greatly distressed, although his hands and feet were cold and clammy. At 5 o'clock a capsule of nitrite of amyl was given, and the palpitation stopped. A few minutes later he rose from the chair in which he had continued to sit during the attack, and the palpitation returned, though not so badly, and continued for an hour and a half longer. The next day the thrill and murmur were present again and the murmur was musical. Twenty grains of bromide of potassium were ordered three times daily and three minims of strophanthus when the attack came on. Neither drug proved to have any effect, and they were stopped a few days later. On Aug. 8th the murmur was very loud, and heard six inches from the chest; it was a distinct musical note, and seemed to be, as nearly as I could judge by a tuning-fork, D sharp (third line, bass clef); it was loudest at the apex and faded in all directions from it. On the 14th he woke in a fright, and this brought on the palpitation; he had much pain in the cardiac region, and heard the murmur himself again. On the whole the attacks had been getting shorter and less violent, lasting only ten to thirty minutes, and being as a rule readily checked by nitrite of amyl. On the 25th he went down into the square, but had a slight attack on coming up stairs. On Sept. 7th he was thought well enough to go out into the country. This he did, and was not seen again until Nov. 12th, when he reported that he was well again, and had had no attack since leaving. The cardiac dulness was normal, and there was no murmur or any evidence of any cardiac lesion, but the pulse was a little quick. He had returned to work as a policeman on the railway station. He looked and said he felt quite well and strong. On March 15th he was seen again. He appeared in good health, and had had no further attacks. In the erect position the apex of the heart was a little out of its place, beating under the nipple, and the cardiac dulness was proportionately increased a little, but the sounds were normal. The heart's action was accelerated by a few beats while standing, but soon quieted on lying down. The epigastrium was observed to-day to recede a little with the systole which had not been noticed before, but there was no systolic recession of the apex. The patient had left his work at the railway, but intended to get other employment. He has been seen once since, and is still in good health.

In this case the attacks were severe, and usually accompanied with distressing palpitation. The most interesting feature in the case was the condition of the heart. There was evidence of very great dilatation, and, accompanying the dilatation and disappearing with it, a very remarkable musical murmur which agreed with no valvular lesion. Such a condition is strongly suggestive of some muscular lesion, which the previous history of rheumatic fever also renders not unlikely. The gradual, somewhat slow, recovery as well as the influence which nitrite of amyl had upon the attacks, point in the same direction, and I cannot help suspecting that there was some such muscular lesion, though no positive evidence could be obtained of it, and the patient's complete recovery might seem opposed to that conclusion. Though often brought on by exertion, the attacks frequently arose of themselves without any assignable cause. They lasted frequently one hour and a half to two hours, but the first three days after admission appeared to constitute one continued attack. After this the attacks came on irregularly, but were of much shorter duration, the maximum being two hours on July 19th, from which time they gradually decreased in duration again until they finally disappeared.

(To be concluded.)

GLASGOW EAR HOSPITAL.—As the result of the examination in connexion with Dr. Barr's winter course of lectures and demonstrations at this hospital, Mr. James A. Scott (Australia) and Mr. Arthur W. Miller (Glasgow) have taken the first positions, and are entitled to the prizes awarded by the directors.

A CASE OF RENAL CALCULI, PYONEPHROSIS, AND NEPHRO-LITHOTOMY

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THE patient, a pale and rather emaciated woman, aged forty-two, unmarried, and a nurse by occupation, was under the care of Dr. Stocker at the Western General Dispensary. When I first saw her she complained of pain and tenderness in the left lumbar region, where there was a large tumour, as well as of nausea and vomiting. There was slight febrile disturbance, the morning temperature averaging about 99°, and the evening temperature about 100°. The patient had occasional cough, with symptoms of slight incipient tubercular lesion at the apex of the right lung. On abdominal examination it was found that a tumour, the size of a man's fist, occupied the left lumbar region, and projected behind into the loin. On palpation the tumour felt firm and smooth, like the kidney buoyed up. Its lower part encroached somewhat on the adjacent left iliac region, and above it fell a little short of the spleen. It admitted of scarcely any movement, and was not obviously affected by forced respiratory movements. On percussion there was dulness over most of the front of the tumour, and over the whole of the loin. By vaginal examination it was determined that the tumour had no connexion with any pelvic structure, nor could a calculus be felt in the lower end of the ureter. The portio vaginalis was normal. The urine was turbid and of pale yellow colour, acid, sp. gr. 1025; it was highly albuminous from the presence of a large quantity of pus, which on standing separated as thick gelatinous deposit. It was quite free from blood, casts, and crystals. Micturition was normal; there was no œdema of the lower limbs, and the bowels acted regularly.

The patient gave the following account of her illness. Seven years ago she first had an attack of pain in the left loin, which lasted for a few days, and she subsequently had several similar attacks. Rather more than eighteen months ago she had an unusually severe attack of this kind, which incapacitated her from following her vocation as a nurse. She has ever since been confined to bed on this account, and has seldom been free from pain in the loin. The turbid condition of the urine, with deposit of slime on standing, was first noticed about this time. Ten months ago the patient was seen by Dr. Stocker, who was the first to notice the abdominal tumour. The following negative symptoms are noteworthy: she had never noticed passage of gravel or calculi, or had the urine ever been blood-stained, and she had never experienced frequency or pain in micturition. She was born in Bayswater, London. Her father died, aged seventy-eight, of apoplexy; he was subject to gravel, and had often passed small calculi. Before this illness set in the patient enjoyed fairly good health, and she cannot recollect having had any previous disease.

As the tumour gradually increased in size and the other symptoms got worse, Dr. Stocker asked me to see her with a view to surgical treatment. After consultation it was decided to recommend exploratory nephrotomy. Accordingly on Dec. 10th, the patient being under ether, I performed the operation, assisted by my colleague Mr. Brodie, and by Mr. Agnew and Dr. Kloster, the house surgeons. An incision was made about four inches long, parallel with the last rib and a little below it. The parietal structures having been divided, the tumour bulged into the bottom of the wound, its sac being covered by a layer of dense fibro-fatty tissue. On palpation in this situation fluctuation was distinct, but no stone could be felt. The edges of the wound being widely separated with retractors, a grooved trocar and cannula were thrust into the projecting swelling. On withdrawing the trocar thick fetid yellow pus escaped. The opening was then enlarged by passing a small scalpel along the groove in the cannula. In this way about three-quarters of a pint of thick fetid pus was evacuated; with the pus there came away over a hundred miliary calculi, mostly smaller than a pin's head, with a few as large as small peas. On passing the finger into the abscess cavity, there was felt a smooth lining of granulations, but no stone could be detected. However, on exploring in the direction of the ureter with a long slender-handled probe, a stone was felt in this situation. Guided by the probe, the finger was again introduced, and by pressing rather firmly in the desired direction the extremity of a stone could just be felt with the end of the nail. It seemed to be firmly embedded in the upper end of the ureter. An attempt to seize it with forceps failed, nor could it be dislodged with a scoop. The finger was again introduced, and after steady and gradual dilatation the stone was sufficiently loosened to enable it to be seized by a forceps and removed. It was an elongated, smooth calculus, about the size and shape of a date stone, but rather larger. It was composed, like the miliary calculi, of uric acid. The rest of the abscess cavity was again carefully explored, as well as the kidney itself, the latter by puncturing with a needle as well as by palpation, but no other calculi could be found. The renal tissue appeared much wasted. At the upper part of the kidney was a cyst the size of a large walnut, quite separate from the abscess cavity; it was opened into the latter, which was irrigated with warm solution of carbolic acid (1 in 40). The wall of the abscess was then secured by chromic catgut suture to the lumbar aponeurosis on each side, and a large indiarubber drainage-tube was passed into its cavity through the wound in the loin. The latter was then closed for most of its extent with superficial and deep catgut sutures. The wound was cleansed with carbolic lotion and dusted over with iodoform. It was dressed with iodoform wool, and over this a large pad of boric charpie in carbolic gauze. The operation was followed almost immediately by marked relief of all the chief symptoms—pain, nausea, and vomiting. The patient slept better the night after the operation than she had done for many weeks previously; and on the following morning the temperature became normal and remained so throughout the subsequent course of convalescence. The wound healed in a week without suppuration, except around the drainage-tube. For the first week it was dressed daily, and for the next fortnight every other day, and subsequently twice a week. The discharge from the wound has never been profuse except on the first few days. For three or four days after the operation the urine contained blood, but since then it has been free from it. The amount of pus in the urine was for the first month considerable, though less than before the operation; since this time it has much diminished. About Christmas the patient had two or three attacks of renal colic, each of a few hours' duration. Shortly after these attacks the abscess cavity was irrigated with warm solution of Condy's fluid, and about two dozen miliary calculi were evacuated. On other occasions a few small calculi have been removed in this way, and a few have occasionally been noticed in the dressings. During the last few weeks, however, none have been seen, but several have been passed during micturition. A large drainage-tube is still kept in on this account, but the amount of discharge from the sinus is slight. The patient is now (nine weeks after the operation) able to get up daily for a few hours. She is quite free from pain, and has greatly improved in her general health and appearance.

Welbeck-street, W.

NOTE ON UREAMETRY.

BY F. R. CRUISE, M.D. UNIV. DUBLIN.

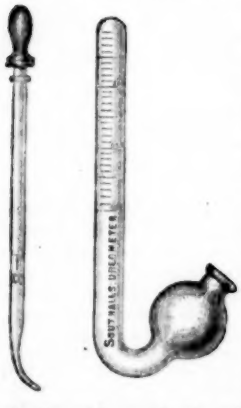
EVERY cautious physician examines the urine for albumen in all serious cases of ill-health, and not unfrequently comforts himself and his patient when he finds that this substance is absent. I doubt that I am in error in adding, on the other hand, that very few practitioners attempt the quantitative estimation of urea in such cases. Nevertheless, the importance of ureametry is far greater than testing for albumen; because, while the latter is often present and signifies little, and may be absent in very grave cases, the quantity of urea is always a matter of serious, and often of vital, consequence. This subject has been treated by Dr. Green of Sandown in a very thoughtful and suggestive article.[1] No doubt many elements must be taken into account in ureametry, such as the diet, habits, exercise, febrile or non-febrile state of the patient; but still it remains a fact that whenever the

[1] Brit. Med. Jour., Dec. 5th, 1885.

excretion of urea falls to a certain point there is imminent danger to life. So far as my own experience goes, in all cases of uræmic poisoning, acute or chronic, the excretion of urea is markedly deficient; and I believe that I am not going beyond the truth if I affirm that in all cases where the elimination of urea falls low we have good reason to apprehend uræmia. If I am correct in this opinion it evidently becomes important to have at hand some means of determining the quantity of urea excreted in any given case, which involves in use neither much time, skill, nor notable expense. For several years past I have worked at this subject, and tried various methods of ureametry on a rather extensive scale.

I propose now to give some account of the instrument towards which I have finally gravitated, finding it speedy, facile in use, inexpensive, and sufficiently accurate for *clinical* purposes. Viewing the matter from a strictly scientific standpoint undoubtedly the best quantitative test for urea is that of Liebig; yet, for the busy practitioner, it is too tedious and troublesome to be available. Another process, approximately accurate, and quite sufficiently so for clinical purposes, is that originally introduced by Dr. Edmund Davy of Dublin as the hypochlorite of sodium test (see the *Philosophical Magazine* for June, 1854), and subsequently improved by the substitution of the hypobromite of sodium in place of the hypochlorite. The *rationale* of this test is very simple. The hypobromite of sodium solution when brought into contact with a definite quantity of urine decomposes its urea and sets free its contained nitrogen. The nitrogen being an exact measure of the quantity of urea, all we require is an instrument so contrived as to record the volume of nitrogen evolved from the urea in the portion of urine used. This once ascertained, it is easy to calculate the urea in the total daily excretion of urine in the case in point. The proportion between the quantity of urea decomposed and the volume of nitrogen set free has been determined by carefully conducted experiments, for some details of which I beg to refer the reader to the able paper of Messrs. Russell and West, published in the Journal of the Chemical Society, August, 1874.

A great number of instruments for ureametry by this method have been devised from time to time, and I have experimented with most of them. Of all I consider that of Dr. Esbach of Paris the most perfect; because by a special contrivance it enables the operator to make a correction for temperature, atmospheric pressure, and moisture of the nitrogen evolved. These advantages are, however, counterbalanced by the necessity for skill in using the apparatus, and by its cost. I have described Esbach's method in the *Dublin Monthly Journal of Medical Sciences* for June, 1886. I am also familiar with the apparatus of Dr. Noel, Dr. Squib, Dr. Emerson Reynolds, Dr. Maxwell Simpson, Messrs. Russell and West, Parke Davis, Motherwell, Gerrard, and others. All, except Esbach's, ignore the corrections for temperature, atmospheric pressure, and moisture, and I think wisely so, for clinical investigations as contra-distinguished from those strictly scientific. After full trial I have discarded all the instruments named above, and have finally chosen for daily use the one devised by Dr. Charles Doremus of New York. Its construction is of the very simplest kind, and will easily be understood by reference to the accompanying woodcut. It consists of two parts. First, a vertical glass tube, closed at the top and bent sharply below, where it expands into a bulb, having an orifice at its upper part. Secondly, a pipette with an elastic rubber nipple. Both parts are graduated; the vertical tube so as to show the quantity of urea (as indicated by the volume of nitrogen) in each cubic centimetre of urine tested, while the pipette is graduated so as to show one cubic centimetre. The instrument is used thus: First, the vertical tube is filled with a solution of hypobromite of sodium in the following manner.[2] Holding it vertically, the operator pours the solution into the bulb, and when it is rather more than half full he inclines the apparatus horizontally until the entire tube is filled and a little left in the bulb—say, one-third or thereabouts. Then he restores it to the vertical position. Secondly, he draws into the pipette, by means of the elastic nipple, a cubic centimetre of the urine to be tested, which should be taken from the collected excretion of twenty-four hours, the exact quantity of which should be noted. Finally, he passes the nozzle of the pipette into the bulb until the point is exactly under the vertical tube, and slowly compresses the nipple. The urine being lighter than the hypobromite solution rises through it, and on its way the contained urea is decomposed and its nitrogen set free. This gas collects at the upper part of the vertical tube, pressing the fluid down into the bulb, and being an exact measure of the urea from which it is derived, enables the operator to ascertain the exact quantity of urea in the cubic centimetre of urine used. The graduation is so arranged as to indicate the proportion of urea per litre of urine. This process, which has taken so many lines to describe, occupies about one minute, and then the instrument is set aside on a little stand, and the final observation taken when effervescence ceases and the quantity of nitrogen becomes obvious. In the case of albuminous urine the subsidence of effervescence is somewhat retarded owing to the tenacity of the bubbles.



As the metrical system of measurement is not familiar to all practitioners, whereas that of grains and ounces is quite so, I have asked Messrs. Southall of Birmingham, the manufacturers of this ureameter in England, to add a second graduation to the vertical tube, indicating the quantity of urea per ounce. They have done so with great skill, and now make these instruments, at a merely nominal cost, with either the metrical graduation or the English equivalents, or with both.

I venture to draw attention to this very simple ureameter, being convinced that if physicians would use it habitually in the numerous cases of renal deficiency which are met with in everyday practice they might obtain valuable indications for treatment, and avoid many calamitous surprises.

Dublin.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE TREATMENT OF GONORRHŒA BY SALOL.

By J. ERNEST LANE, F.R.C.S.,
SURGEON TO OUT-PATIENTS, LONDON LOCK HOSPITAL; LECTURER ON ANATOMY, ST. MARY'S HOSPITAL MEDICAL SCHOOL.

I HAVE for some time past been prescribing salol in the out-patient department of the London Lock Hospital, and am now enabled to give the results of its administration in fifty cases of gonorrhœa. I have tested the value of the drug in urethral discharges at all stages, in some cases relying solely upon its use, in others employing an astringent injection in addition. An analysis of the fifty cases shows that six were cured, twenty-four showed considerable improvement, in fifteen cases no change either for better or worse was noticed, while in five cases the symptoms were aggravated. The doses used were from five up to thirty grains, taken three times daily. The beneficial effects of salol manifest themselves in a very short time. When improvement takes place the symptoms show an abatement in from two to seven days; in acute cases the painful micturition is early alleviated; in cases of a more chronic nature the discharge is materially lessened in this time. In ten cases an injection was employed in conjunction with salol; this was when I commenced my trial of the drug, which I gave at first in five-grain doses. I subsequently increased

[2] The formula for this solution is as follows: Sodium hydrate, 5 parts; distilled water, 20 parts; bromine, 2 fluid parts. This solution keeps well for about a month, and may be easily prepared in a moment, fresh and fresh as wanted, by keeping a quantity of the sodium solution ready, and then adding the needful proportion of bromine. The latter should be kept in sealed glass capsules, which may be dropped into the solution and broken by a shake. In this way the disagreeable odour and inconvenience of handling the bromine are avoided.

the dose to ten, twenty, and in a few cases to thirty grains, and relied upon its internal administration without the assistance of injections; out of forty cases so treated, an improvement was noticed in twenty within a week, while six were completely cured. Salol is not a mechanical mixture of carbolic and salicylic acids, but appears to be a compound of the nature of an ethereal salt, since phenol can, with some some slight difficulty, be obtained from it on saponification. The potassium salt left after the treatment of salol with caustic potash gives with hydrochloric acid an acid which is either salicylic or one of its isomers. Four hours after administration by the mouth of twenty grains of salol traces of carbolic and distinct evidence of salicylic acids, combined with other elements, were found in the urine. In one case the urine was blackened as in carboluria, the patient at that time taking thirty grains three times a day. It is by the action of the pancreatic juice that salol is said to be split up into carbolic and salicylic acids; of this change I was unable to procure any sufficient evidence after having added pancreatine to a mixture of salol. In salol we have, in my opinion, an addition of considerable value to our list of remedies for gonorrhœa; its effect is apparently produced by the action of the urine upon the inflamed urethra, since that fluid contains salicylate and carbolic acids in combination, probably as salicylurates and sulphocarbolates. It may be given in doses of from ten to twenty grains three times daily at any stage of the disease, and in chronic cases an astringent injection will materially hasten the cure. The effect of the drug does not appear to be enhanced by larger doses than twenty grains; when the amount was increased to thirty grains, the urine became blackened and the symptoms did not show any proportionate improvement. I commenced by giving five-grain doses, but this was soon discovered to be too small a quantity, and my results would, I doubt not, have been more favourable had I commenced its administration with a freer hand. I am indebted to Mr. R. J. Carter, house surgeon to the Male Lock Hospital, for his careful investigation into the chemical properties of the drug, and for notes of the progress of the cases so treated.

Cambridge-street, W.

A CASE OF PYO-NEPHROSIS, COMPLICATED BY MYOSITIS; DISAPPEARANCE OF THE TUMOUR AFTER AN EXPLORATORY INCISION, WHICH FAILED TO REACH THE KIDNEY.

BY HERBERT SNOW, M.D. LOND., &c.,
SURGEON TO THE CANCER HOSPITAL.

THE following case affords an example of what would seem to be a very unusual condition; no allusion to which (as a possible complication of nephrotomy) has been found in the numerous papers upon renal operative surgery which have recently appeared. The case is also interesting in view of the remarkable benefit resulting from an incision through the tissues in the neighbourhood (only) of the disease.

Sarah R——, aged fifty-six, was admitted into the Cancer Hospital on Sept. 30th, 1889, with a rounded tumour of six months' duration to the left of the middle line between the umbilicus and the cartilage of the seventh rib on that side. No family history of cancer; no injury; much mental distress and hard work; an emaciated anæmic woman, whose appearance strongly suggested malignant disease. Beside progressive debility she had frequent attacks of acute pain radiating from the tumour; stated that she had frequently passed gravel, and the urine was found to contain large quantities of pus. No special frequency of micturition; urine, sp. gr. 1014; no sugar. The tumour, evidently deep-seated, was of about the size of a large orange, at first hard. An ill-defined induration was also apparent in the left lumbar region, filling up the space between the iliac crest and the false ribs. Upon Oct. 13th the patient had a rigor, and the temperature rose to 105°, soon subsiding, however, to the normal. Fluctuation in the tumour became apparent, and after a consultation of the staff it was decided to explore the kidney. On Oct. 22nd a three-inch transverse incision was accordingly made about midway between the crest of the ilium and the last rib, although the induration above described made it difficult to trace the bony outlines. The tissues were divided to a depth of from two to three inches. It then became apparent that the muscles were, from the iliac crest upwards, in a consolidated gristly condition. The sensation was exactly analogous to that left upon cutting into a scirrhous mammary growth; profuse hæmorrhage also took place, and the original view of malignancy which had been entertained received apparent confirmation. As, moreover, it became obvious that, even if the kidney were actually incised, the rigid brawny state of the parts would preclude the removal of any calculus which might there exist, it was decided not to proceed further. The wound had to be plugged with iron-lint before the bleeding could be arrested. The operation wound quickly healed, and concurrently both the induration and the tumour completely disappeared. By the middle of December complete cicatrisation had taken place; deep pressure still caused pain where the mass had been, but the only other trace of the latter was afforded by slight fulness and resistance. There was a very marked improvement in the general health, and the woman left at her own request without any bad symptom, being, as she considered, completely restored to health. Some mucus with a very few pus-cells was present (on Jan. 15th last) in the urine. The greater part of the time a mixture of nitro-hydrochloric acid with cinchona was given. Such treatment could obviously have had little share in the favourable result.

Gloucester-place, W.

ACUTE INVAGINATION OF COLON.

BY JOHN MCMUNN, L.R.C.P. ED., L.R.C.S.I.,
LATE DEMONSTRATOR OF ANATOMY, DUBLIN.

A HEALTHY child was given a dose of castor oil by its mother at 10 A.M. on a Friday morning in September, 1889. The drug was given as a purgative after vaccination; it was not required. Result: three curdy evacuations, slightly slimy. At 6 30 P.M. it suddenly kicked out, grew pale, and at 8 P.M. it vomited. Next day (Saturday), at 3 P.M., it evacuated slimy blood, and this was the signal symptom that led to my seeing it. It was a well-developed boy of four months, but now lay in a state of extreme collapse on its mother's lap. It presented the following signs and symptoms, sufficiently distinct to make a diagnostic error impossible. Emesis frequent, the vomited matter resembling thin oil; tenesmus, causing mucus, thin and pink, to ooze from the anus; anuria, from suppression, coincident with the earliest symptoms; flexion, with adduction of left thigh; tympanites, central and superior; abdominal tumour, in position, deep-seated, oblique, and extending for about three inches from the left iliac region, upwards and to the right; rectal tumour, smooth and even, fixed and elastic, becoming tense during efforts at straining. This tumour was manifestly the tangible end of the abdominal swelling.

Treatment.—Abdominal taxis; large oil enemata; belladonna inunctions; nutriment suitable as to time, kind, and quantity. An operation was objected to. Death by syncope took place at 10 A.M. on Tuesday.

Necropsy forty-eight hours after death.—Distended small intestine, bulged up from incision; large intestine absent from its normal position; hidden by small intestine lay the tumour recognised during life, to all intents a livid sausage composed of the first two inches of the ileum, and the whole of the colon to within an inch and a half of the anus. The ileum had not passed the ilio-cæcal valve. The intussusception had been produced by the invagination of the upper into the lower part of the gut. Between the outer and middle walls of the mass was a quantity of blood-stained mucus; between the middle and inner were strangulated vessels and adherent peritoneum. The mucous surfaces were swollen, soft, and moist; the muscular tissue softened and fragile, the serous surfaces when drawn asunder were abraded. The exciting cause of this case seems to have been the administration of the commonest and safest of all laxatives, a drug which acts on intestinal gland and muscular fibre. The analogue of the case is seen in true prolapsus ani produced by straining; its factors were these. An empty canal, a relaxed mucosa, and abnormal activity of intestinal muscular fibre. The gaseous contents of the bowel probably play an important part in preventing invagination and other forms of intestinal obstruction. The sphincters of the rectum favour prolapse by constricting the part of the falling bowel which they encircle, while the longitudinal fibres labour in its expulsion. The rectal sphincters are foreshadowed far up the colon by the accumulation of circular muscular fibres between its saccules. I have seen a case of invagination of the colon reduced by an extensive rectal prolapse, which latter was afterwards reduced and a cure effected.

Stoke Newington, N.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

THE LONDON HOSPITAL.

ACUTE INTESTINAL OBSTRUCTION, PROBABLY DUE TO EMBOLISM OF SEVERAL TERMINAL BRANCHES OF THE SUPERIOR MESENTERIC ARTERY; REMARKS.

(Under the care of Mr. M'CARTHY.)

THIS case, in which obstruction of the bowels was caused by changes in a portion of the small intestine dependent upon arrest of circulation in branches of the superior mesenteric artery, is of extreme rarity. The factors necessary to produce such a condition as that found at the post-mortem examination are numerous. Mr. M'Carthy indicates the points most worthy of consideration, and their combination in any particular instance is, of necessity, unusual. The effect produced was much like that seen in a loop of intestine which, nipped for some time in a hernia, has been returned to the abdominal cavity, but is unable to recover, and remains as a useless paralysed portion, producing an obstruction, past which the bowel contents are unable to go. The change produced in the structure of the gut and the consequent paralysis would place it under Henrot's first division of pseudo-strangulations of the intestine.

On Feb. 18th of this year a man aged seventy-seven was admitted into the London Hospital under Mr. M'Carthy for intestinal obstruction. He was very intelligent, and gave a very clear history of his illness. He had had an attack of influenza, and on recovering from that, tempted by the fineness of the day, went out for a walk on Feb. 12th. Feeling chilled, he returned home and went to bed. Soon after he experienced very severe pains in the right hypogastric region. Vomiting then ensued, and, despite medical treatment, continued for six days, during which there was no action of the bowels, nor had he passed flatus, blood, or mucus by the anus. He was then brought to the hospital. His eyes were sunken, features pinched, tongue dry, pulse very feeble, abdomen not tense, but the outline of distended coils of intestine could be seen. There was dulness in both flanks, and no abdominal tenderness. He had bilateral inguinal hernia. The left sac was flaccid, and contained some soft doughy substance; the right sac contained bowel which was resonant on percussion, but gave no impulse when the patient coughed. The hernia could be easily reduced, but always returned. The patient stated that it had existed for more than fifty years, and had never given him any trouble. During the examination the patient vomited several times some bile-stained fluid. In the circumstances Mr. M'Carthy determined upon a median incision in the abdominal wall after the patient had been anæsthetised. When the peritoneum was opened fluid fæcal matter poured out, and when the opening had been enlarged an intensely congested coil of small intestine was seen lying transversely about two inches below the umbilicus. When this was drawn forwards a perforation could be seen in the middle of the free border of the bowel, from which fæcal matter poured, and about an inch to the right of the perforation the bowel was livid and collapsed. The orifices of both hernial sacs were large, and the contained bowel in no way obstructed. The mesentery, which was loaded with adipose tissue, was slightly ecchymosed, and the bloodvessels leading to the collapsed and congested bowel were filled with clot. The peritoneum was washed out with warm carbolic water (1 in 40), and the abdominal wound was closed, leaving the perforated portion of bowel outside. The perforation was enlarged, and attached by some sutures to the margins of the wound. When the patient recovered from the anæsthetic he had no further vomiting, but died ten hours after from exhaustion. At the post-mortem examination the small intestine was found to be matted together by old and very firm adhesions. The perforation was in the lower part of the ileum, about twelve inches from the ileo-cæcal valve. The descending colon was empty and firmly contracted. The sigmoid flexure was in the like condition, and lodged in the left hernial sac, but quite free. The ascending colon had a very long meso-colon, and lay near the middle of the abdomen. The cæcum with a long meso-cæcum was in the right hernial sac, and there was a band of adhesion between its lowest part and the bottom of the sac long enough to allow of complete reduction of the bowel. The lungs were in an extreme state of hypostatic congestion. The left ventricle was hypertrophied. The aortic valves, though atheromatous, were functionally competent. The aorta was very atheromatous. When it was opened the inner surface from the arch to the bifurcation was seen to be thickly studded with circular masses of fibrine about the size of a sixpence. Some of these masses were adherent by their entire base, but others were only attached at one border, so that they waved about in the stream of water with which the vessel was washed. Beneath these masses the intima was completely eroded.

Remarks.—In reviewing the case, Mr. M'Carthy pointed out that the physical signs observed prior to the operation were very satisfactorily explained by the post-mortem examination. The dulness in the flanks had been due, on the left side, to the contracted state of the descending colon; and on the right side to the abnormal position of the ascending colon. The absence of impulse in the right hernia was probably due to the collapse of the adjacent portion of the ileum, and the constant return of the hernia after reduction was explained by the band of adhesion between it and the sac. The matted condition of the small intestine physically precluded the possibility of the congested or collapsed portion of the ileum having been at any recent period lodged in either hernial sac. The plugged condition of the supplying vessels observed at the time of the operation and the state of the aorta demonstrated at the post-mortem examination seem to clearly indicate that embolism of several of the intestinal branches of the superior mesenteric artery had caused the obstruction. A portion of bowel deprived of its blood-supply would functionally be as completely paralysed as if it had been strangulated. The perforation was probably the result of ulceration due to a minute embolism. If this interpretation be correct, a surgeon having to deal with a case of obstruction of unknown origin must, among other possibilities, consider that of embolism also. The case teaches two lessons of practical importance—first, that kneading the abdomen recommended by some authorities is a very hazardous proceeding, however successful, or at any rate harmless, it may have proved in some instances; secondly, that abdominal section, if adopted, should be done at an early period. If in this case an artificial anus had been made in the affected portion of bowel earlier and before perforation, life might have been prolonged. As it was, it merely resulted in the cessation of vomiting, and so promoted euthanasia.

THE KENSINGTON INFIRMARY.

A CASE OF CÆSAREAN SECTION; DEATH; REMARKS.

(Under the care of Dr. HAWARD VAN BUREN.)

WE published earlier in the year[1] the notes of a Cæsarean section in a case of contracted pelvis, and drew attention to the increased mortality of this operation when the mother is exhausted by unavailing labour pains. In this patient delay was occasioned by attempts to remove the child through the contracted pelvis, and her condition was already "becoming alarming" when the more serious operation was undertaken. Prüger[2] gives the maternal mortality after craniotomy as 2·8 per cent., and Leopold the maternal mortality after Cæsarean section as 8·6 per cent., but in the latter there is a percentage of 87 living children, which must be taken into consideration when estimating the value of the operation. The various modifications in the operation of abdominal hysterectomy, the employment of antiseptics, and a more just appreciation of the circumstances under which the operation should be performed, have done much to diminish the number of instances in which the attendant feels justified in resorting to craniotomy.

C. M——, age twenty-four, a primipara, was admitted into the lying-in ward on Jan. 6th, 1890. On external examination the uterine enlargement was seen to be of a

[1] Vol. i. 1890, p. 19. [2] Sajous, vol. ii., p. 927.

very peculiar shape; markedly pendulous, with lateral displacement. There was curvature of the lumbar vertebra, and the symphysis pubis was distinctly depressed backwards. The measurements between the anterior superior iliac spines was nine inches and a half, and between the centre of the crests twelve inches. She accounted for these deformities by stating that she had been run over, with injury to the pelvis, when a child. There was no history or sign of rickets. On vaginal examination, the os was the size of a shilling, and the depression backwards of the pubes was distinctly felt. On the morning of the 7th labour came on, the os was fully dilated, and a vertex presentation of the first position was diagnosed. The head made no progress whatever, and, after consultation with Dr. Reginald Dudfield, it was decided to administer chloroform and apply the forceps; they were easily put on, but it was found impossible to move the head. Finding that the delivery of a living child was hopeless, Dr. Van Buren decided to apply the cephalotribe, but this also was of no avail. He then perforated and put on the craniotomy forceps, but with no better result. Then the right leg was brought down and considerable traction made, but it was useless; he then amputated it as near the hip-joint as possible. The right arm was served in the same manner. The woman had by this time been under the anæsthetic two hours, and her condition was becoming alarming. As neither Dr. Dudfield nor Dr. Van Buren could get the child away per vaginam, they decided, after reviewing all the features of the case, that the only chance left to the mother was to perform Cæsarean section. Dr. Dudfield changed the anæsthetic to ether, and the case being so urgent, Dr. Van Buren operated without assistance.

Operation.—An incision was made an inch above the umbilicus downwards to three inches below it. The parts were dissected through until the peritoneum was reached; this was divided on a director. The uterus was then brought well forward out of the abdomen; the position of the placenta was easily made out to be to the left of the fundus; this was carefully avoided in the uterine incision, which was commenced in the median line an inch below the fundus, and extended downwards for four inches. The child was removed, as was also the placenta. The uterus was firmly grasped and treated to a hot douche (120° F.) of corrosive sublimate (1 in 4000). There was hardly any hæmorrhage, and the channel for the lochia to the vagina was amply patent. The uterus was sutured with deep interrupted silver wire, the ends being cut very short and carefully flattened. Particular attention was paid to the toilette of the peritoneum. The abdominal wound and peritoneum were brought together by deep silver sutures and superficial carbolised catgut. The whole operation was conducted under strict antiseptic precautions, and lasted forty-five minutes. The dressings were silk protective, wood-wool, gauze bandages, iodoform wool, and flannel bandages. She rallied very well from the operation, and nothing but ice and brandy were administered for the first twenty-four hours. The urine was ordered to be drawn off by a catheter, and a hypodermic injection of morphia was given at night. She slept well. Temperature 99·4°; pulse 120.

Jan. 8th.—No sickness. Takes nourishment well. Complains of slight pain in the abdomen. Temperature 97·6°; pulse 124. Morphia was given hypodermically at night.

9th.—Still has pain in the abdomen; this was thought to be due to colic. A saline purgative and a small enema of olive oil and soap was ordered, and much relief obtained. Has taken beef-tea. Temperature 100·2°; pulse 100.

10th.—Complains of dragging pains in the abdomen. Wound examined. One stitch had given way, and there was slight prolapse of the bowel. This was reduced under chloroform, and a fresh suture put in. Operation lasted ten minutes. Temperature 100·4°; pulse 124. Is much easier. No sickness. Hypodermic injection of morphia was given at night. Slept well.

11th.—Is more collapsed. Pain returned in abdomen. Refuses food. Nutrient enema and champagne ordered. Has been sick. Does not sleep. Is delirious. Abdomen tender.

12th.—Had a very bad night. Vomit black in colour. Is in much pain. Died at 8.45 A.M. Temperature just before death 105·8°.

Necropsy.—Complete union of the abdominal wound. Small patch of peritonitis over ileum. Uterine incision united except for a quarter of an inch, where it gaped. Small pyo-salpinx of the right Fallopian tube. Upper zone of cervix soft, œdematous and tissue much broken down. Stomach distended with gas. Liver distinctly fatty; heart, lungs, and kidneys normal. The conjugate diameter at the brim was only 1¾ in. The height of the woman was 4 ft. 10 in. The fœtus was a fully developed male child, weighing 7½ lb. The diameters of the head were normal.

Remarks by Dr. VAN BUREN.—Death in this case undoubtedly ensued as the result of collapse from the inability to retain food, probably caused by the peritonitis. If another case fell to my lot, I should certainly feel inclined to discard silver wire for sutering the uterus, as I believe, however carefully applied, such sutures are a source of danger. I am inclined to attribute the peritonitis to this cause. It is unfortunate that the operation is more or less a *dernier ressort*. If I could have made up my mind to operate from the first, I should have gained much valuable time and undoubtedly saved the child. Owing to the spinal disease, my patient would not lie on her back, but on the side, which necessarily put more tension on the abdomen, and to this I attribute one of the sutures yielding, which, to say the least of it, was very undesirable. The lochia were normal all through, and there was never a sign of hæmorrhage or septic mischief. I am inclined to agree with Dr. Greig Smith that opium in these cases does more harm than good. A great deal of the pain and discomfort is due to flatus, and a saline purgative with a small enema works wonders. Milk is to be avoided, and a nutrient enema should be peptonised. The question of reopening the wound when peritonitis sets in, and if possible finding the cause and treating it on modern principles, is a difficult one, with certain death staring the patient in the face. I am not at all sure that this last chance should not be given to her.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY.

A CASE OF "CAUSALGIA"; REMARKS.

(Under the care of Mr. ARTHUR E. WATSON, Assistant House Surgeon.)

BY the term "causalgia" is meant an acute burning or neuralgic pain often associated with a glossy state of the skin. This word was introduced by Dr. Weir Mitchell to describe a condition of neuralgia of the extremities, frequent and characteristic, met with in patients who had suffered gunshot injuries during the Civil War in America. It has been also described in this country and elsewhere. It consists, according to Dr. Mitchell, of a violent burning pain occurring in the peripheric region of distribution of the nerve affected, and especially in the hand and foot, and which can only be assuaged by the constant application of cold water to the skin. With regard to treatment, he says that a vast number of means were tried to ease or cure "causalgia," but the one essential for comfort was the use of water dressings, which were unceasingly renewed, the sufferers carrying a bottle of water and a sponge, and keeping the part covered. Erb says: "Similar pains may be experienced in central neuralgiæ; peculiar lancinating pains are, however, more frequent in these affections." The severity of the affection, as met with in some of the cases described by Dr. Weir Mitchell, has not been recognised in patients under the care of others. In his cases much benefit was also obtained by subcutaneous injections of morphia into the part affected, and by the repeated application of blisters.

M. L——, aged forty-three, married; has had twelve children. No history of previous illness or of gout, syphilis, or rheumatism. On Feb. 5th, directly after the patient had washed her hands, she was suddenly attacked with acute stabbing pain in the palms, but more marked in the right. The pain extended to the tips of the fingers, and she noticed soon after its commencement that they were of a white colour and shiny looking, and that they were "drawn"—i.e., flexed. There was also shooting pain down the forearms from the elbows, but this was not acute, like the palmar pain. The later pain was so severe that the patient cried out, and could not bear the slightest pressure on the hands or fingers. Mr. Watson was called to see her at 8 P.M., and found her crying out with the pain. She described it as a cutting, burning pain, and most intense in the palms of the hands. The fingers were flexed on the palms, and the skin was white and shiny or glossy. The hands and fingers were

distinctly warmer to the touch than other parts of the body. Temperature 98·6°. Heart normal. Bowels somewhat irregular. Tongue slightly furred and dry. A saline mixture was ordered, and the hands and wrists were wrapped up in a thick layer of cotton-wool.

Feb. 6th.—The acute pain subsided suddenly at 2 A.M. On visiting her at 10 A.M. there was still some pain and tenderness. The fingers were flexed and of white and shiny appearance; she could not move them without pain. She remained two days without any further pain, but on the afternoon of Feb. 8th she was seized with the same sudden pain in the palm of the left hand. The fingers were flexed, and she noticed that while the pain lasted they were white and shiny. During the intervals of the acute pain she felt a pricking sensation in the hands like "stinging nettles." The pain had disappeared in the right hand; there was no tenderness, and the fingers were of normal colour and appearance.

She was seen again on the 14th, and stated that since the last visit the "stinging nettle" sensation had continued. On the previous night the right hand was affected with the acute pain resembling that of the first and second attacks. She tried to relieve this by putting the hand in cold water, as she had been advised; but this did not diminish, and even seemed to aggravate, the pain. A few hours were allowed to intervene, and then the hand was put into very hot water, and this relieved the pain at once. (The water was so hot that she could not bear the left hand in it.) Although the acute pain disappeared on using hot water, a feeling of numbness remained in the hand during its immersion and for some time afterwards.

Two days after she had another attack in the right hand, which was relieved in the same manner. The patient was last seen on Feb. 25th, and had then no pain. The fingers were of normal colour and appearance. She would not use cold water for the hands, fearing she would bring on another attack.

Remarks by Mr. WATSON.—The cases described by Weir Mitchell were relieved by moistening the hands or parts affected, and cold did more good than warmth. In this case drugs were useless, and of the several local remedies used none gave the patient any relief except immersing the hand in very hot water. Cold certainly did more harm than good, and so convinced was the patient of this that she was afraid to use cold water. The pathology of the complaint is obscure, but I should be inclined to think it due to vaso-motor changes after the type of Raynaud's disease. The important points in the case are the following:—1. Acute, stabbing, burning pain in the palm of both hands, then left and right hands separately affected. 2. White and shiny appearance of fingers during attacks. Normal in intervals. 3. Cold increased the pain, very hot water diminished or arrested it. 4. The uselessness of drugs, liniments, &c.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Bronchial Casts from Bronchitis Crouposa.—Coccygeal Tumours.—Paget's Disease of Nipple.—Half Vertebra in Rabbit.—Imperforate Rectum.

AN ordinary meeting of this Society was held on March 18th, the President, Dr. W. H. Dickinson, in the chair.

Dr. SAMUEL WEST read notes of a case of Bronchitis Crouposa accompanied by the expectoration of bronchial casts. The patient was a woman aged forty, who was admitted with asthmatic symptoms of two years' duration. The attacks were curiously periodical, occurring at 2 A.M. The casts were found in the sputum, and were small in size, mucoid in nature, and plentiful in quantity. The patient was under observation for several weeks, and left in much the same condition as on admission. He referred to a second case—that of a man aged forty, who was suffering from croupous bronchitis. He had been for many years in Jamaica and had been a free liver, suffering much from the effects of alcohol. He had much dyspnœa, and his expectoration contained casts. He ultimately returned to his usual health. Dr. West likewise mentioned a third case, in a patient who was the subject of rheumatic fever and hyperpyrexia. The temperature reached 109° F. At the necropsy rheumatic pericarditis was found, the lungs were congested, and at the end of the trachea and in the bronchi were casts similar to those in the former case. The subject was interesting in relation to the pathology of membranous inflammation in the respiratory organs. Some years ago two distinct forms of membranous inflammation were recognised; but without any fresh facts, so far as he knew, being adduced, the second, or non-diphtheritic variety, had been dropped. Cases such as those he had related were undoubtedly of membranous nature, and there was also no doubt that they were quite distinct from diphtheria.—Dr. LUBBOCK said that a typical case of croupous bronchitis was in Charing-cross Hospital a few months ago, casts being expectorated in abundance. He agreed with the description given of the affection by Fagge, who regarded it as a disease separate from diphtheria.—Dr. HADDEN asked on what grounds the case related was considered not to be diphtheritic. The mere locality of the membrane went for nothing at all.—Dr. DICKINSON said that many of the non-diphtheritic cases were chronic, and extended over years. He referred to the case of a lady in whom a membrane formed in the larynx and trachea from inhalation of eau-de-Cologne, and a similar condition had been noticed in chemists who had inhaled irritant vapours.—Dr. COUPLAND said he thought the histology of a croupous cast was different from that of a diphtheritic one.—Dr. WEST, in reply, said that he believed there was a croupous bronchitis which had nothing to do with diphtheria. He knew no means of distinguishing between diphtheritic and non-diphtheritic exudations.

Mr. BOWLBY brought forward three cases of Coccygeal Tumours. The first occurred in a female child aged three weeks, who was admitted into St. Bartholomew's Hospital on Feb. 27th, 1888, with a large gluteal tumour. The growth had existed since birth, and had been twice tapped. It was situated in the gluteal region, and was attached chiefly to the left side, protruding posteriorly, and hanging in a pendulous manner between the thighs. It measured fourteen inches and a half in circumference. Its shape was globular, and it displaced the anus forwards, so that the latter and the orifice of the vulva looked like openings on the front of the growth. The tumour was tense and fluctuating except at the base, where there could be felt several irregular hard masses of solid growth attached to the pelvic bones. The skin over it was normal, and there were no associated deformities. Tapping of the growth gave exit to thirteen ounces of red viscid fluid, and after a second tapping the cyst was injected with Morton's fluid. From this time the child was sick and ill, and died in a few days. Post-mortem examination showed that the growth was a large cyst, with a solid fibrous base attached to the lateral aspects of the sacrum and coccyx, and to the adjacent innominate bones. It extended into the pelvis behind the rectum as high as the sacral promontory. In addition to fluid, this cyst contained masses of soft, friable, red tissue looking like mucous polypi. The spinal column was normal except for some tilting backwards of the coccyx by the growth. Microscopical examination showed that the intra-cystic growth was composed of tissue like neuroglia, in which were embedded numerous small cylindrical tubes which were unbranched, not collected into bundles or arranged in any definite manner, with nucleated walls and a central clear cavity. The second case was that of a female infant aged three days who was noticed to have a large swelling in the left gluteal region. The tumour was smooth and globular and covered by sound skin. It measured fifteen inches in circumference, and although fluid for the most part, it was solid at its base of attachment to the pelvic bones. There was a considerable extension of this growth into the pelvis behind the anus. No treatment was undertaken till a year later, and then tapping and pressure resulted in a gradual shrinking of the growth. The third case was that of a female child who was noticed to have a large gluteal swelling at birth. This did not increase in size, and when seen at the age of six months was found to be a globular swelling measuring twelve inches in circumference. It fluctuated freely, but was hard at its base of attachment to the pelvic bones. There was no extension of growth into the pelvis.—Mr. JONATHAN HUTCHINSON, jun., had examined a case of this kind, the operation to remove which proved fatal. He found it to consist of a series of cysts separated by thick walls. In one of the septa he found a miniature sternum with the cartilages attached; another of the cysts was filled

with blood, which was contained in a cavity not unlike a ventricle; in yet another cavity was brain matter, and there was also striped muscle fibre present. It seemed much more natural to him to refer the origin of such a growth to an included ovum than to derive it from some abnormality of the neurenteric canal.—Mr. SUTTON said a good deal of the mystery that hung about these groups was due to the mixing up of the different kinds of tumours that occurred in this region. There were at least four varieties—dermoid cysts, tumours derived from abnormalities of the post-anal gut, spina bifidas, and teratomata. He thought the tumours Mr. Bowlby had shown were derived from abnormalites of the post-anal gut. The stalk of these tumours always ended anteriorly to the coccyx, and they were limited sharply above by the levator ani muscle. The case Mr. Hutchinson had related was one of posterior dichotomy of the spinal axis; there was usually in these cases reduplication of the pelvis, and the extra pair of legs corresponding to it might either undergo suppression or might develop. When only two legs were developed the patient usually walked with the right leg of one pelvis and the left leg of the other. In anterior dichotomy the same thing happened with the pairs of jaws.—Mr. BOWLBY, in reply, agreed to a certain extent with Mr. Sutton's classification of these tumours: some were instances of dermoid or of included fœtus, others were mesoblastic cysts continuous with spinal membrane, and others were coccygeal tumours. The growths he showed did not support the view that they originated in connexion with the post-anal gut. The specimen was referred to the Morbid Growths Committee.

Mr. J. HUTCHINSON, jun., showed specimens illustrating the presence in what was known as "Paget's disease," or eczema of the breast, of Psorosperms or Coccidia. The parasite, of oval or rounded shape, and one-thirtieth of a millimetre in length, was found in the thin layer of epithelium which covered the florid surface of the diseased patch of skin. Each coccidium had a shell which on section presented the appearance of a double contour or outline. Often a small knob or aperture at one end, the micropyle, could be distinguished. In the interior one or more granular and globose masses were to be seen, and sometimes the psorosperms might be made out. In the coccidium oviforme of Leuckart each coccidium developed from psorosperms inside the shell, which subsequently became free. Mr. Hutchinson believed that he had detected these amongst the epithelial cells. The case from which the specimens were obtained was a woman aged forty-six, who for four years had had a patch of inveterate eczema around the nipple, measuring four inches in diameter. The development of a scirrhous tumour in the breast led to the removal of the latter. M. Darier, who discovered the parasites in cases of Paget's disease in 1889, pointed out that the easiest method of demonstrating them was to scrape the surface and treat the scraping with iodine solution or bichromate of potash. The best way, according to Mr. Hutchinson, was to soak the scraped epithelium with liquor potassæ, and to mount it in glycerine jelly. By this means the coccidia were differentiated, and their number could be estimated. Using a $\frac{1}{8}$" power, as many as one hundred coccidia were counted in a single field. A case of eczema around the nipple, in which the skin became affected subsequently to the development of the cancer, was examined for the parasite, with negative results. Attempts at inoculation on animals had hitherto failed. The parasite which produced Paget's disease of the breast appeared to be precisely the same as that infesting the liver or intestines of rabbits, mice, &c. One or two similar instances had been observed in men. Mr. Eve had demonstrated them in the ureters in one case, and it was possible that some supposed examples of cancer of the liver might prove to be due to the same cause.—Dr. CROCKER said that in the case of Paget's disease of the scrotum which he had described in the last volume of the Society's Transactions he had since found psorosperms in abundance.—Mr. SPENCER regarded the appearances under the microscope as indicative of indirect division of nuclei. Another specimen showed what might be a microsporon furfur.—Dr. THIN hoped the discovery would cause this extraordinary disease to be freshly studied. It had been said that the disease was due to some unknown irritant, and this was now probably found. The specimens shown under the microscope he regarded as instances of cell degeneration.—Dr. DELÉPINE had been working at psorospermiæ for six months, and he had no doubt that the specimens shown were of that nature. He had recently examined a case of carcinoma extending along the bile ducts, and in many of the nodules he had found psorosperms.—Mr. BOWLBY said that in cancer of the breast following eczema of the nipple there was often a considerable space of healthy tissue between the carcinoma and the nipple disease; this required something more than the mere development of coccidia to explain.—Mr. BALLANCE looked upon the specimen as one of epithelial nuclei.—Mr. SHATTOCK was of opinion that the bodies were coccidia.—Dr. COUPLAND said that the specimen was certainly nothing like microsporon furfur.—Mr. HUTCHINSON, in reply, said that he had examined specimens of healthy breasts with negative results. In one case also, where eczema developed after cancer, he could find no spores. Ultimately it was agreed to refer the specimen, together with that shown by Dr. Crocker last year, to the Morbid Growths Committee.

Mr. BLAND SUTTON showed a case of Half Vertebra in a Rabbit. Half the body was present, with a single transverse process and articulating process. Several of these had been described as occurring in man, and one had been seen in a snake.

Mr. STEPHEN PAGET related cases of Imperforate Rectum and Imperforate Anus. The first case was that of a female infant, who was submitted to operation on the third day. The cul-de-sac was about an inch in length, and no impulse could be felt. Left inguinal colotomy was performed at once, and ten days later a director was passed down the bowel, the cul-de-sac everted over it, pushed out at the anus, incised, and dilated. The infant died of exhaustion when five weeks of age. The specimen showed a smooth lower bowel, free from any sign of inflammation. The second case occurred in a male infant, who underwent operation on the third day. There was no cul-de-sac, but a deep dimple over the sacral region, and a soft outgrowth of skin behind the scrotum. The pelvic outlet was very small. A free incision was made, and the bowel reached at the depth of an inch. The infant died from suppression of urine three days later. At the necropsy the right kidney was rudimentary, weighing only a few grains, and no ureter was found to it. The descending colon ran straight down the middle line of the body; for its last half-inch it was greatly thickened by acute œdema of the submucous tissue with cell proliferation; there was no ulceration of the mucous membrane. Mr. Paget referred to Mr. Curling's paper in the forty-third volume of the Medico-Chirurgical Transactions. According to a table of 100 cases there recorded, failure to reach the bowel by a perineal incision was just as frequent in cases where a cul-de-sac was present as in instances where there was no such projection. He called attention to the chances of performing a second operation after an inguinal colotomy, and to the occurrence of malformations elsewhere in the body in these cases.

The following card specimens were shown:—

Mr. STEPHEN PAGET and Mr. G. R. TURNER: Fracture of both First Ribs.

Mr. J. W. TARGETT: Carcinoma Vesicæ secondary to Scirrhus of the Mamma.

Mr. EVE: End of Penknife projecting through Calvaria, the injury taking place some time before death, which resulted from phthisis.

CLINICAL SOCIETY OF LONDON.

Exhibition of Clinical Cases.—Abdominal Nephrectomy for Sarcoma of Supra-renal Capsule.—Laparotomy for Ruptured Small Intestine.

A MEETING of this Society was held on March 14th, the President, Mr. Christopher Heath, in the chair.

Dr. SAVILL showed a case of Abductor Paresis of the Vocal Cords in a woman aged forty-five. A cough developed two months before she came under observation, and there was a suspicion of pulmonary disease at the right apex. There was no sign of polypus or tumour, and no bacilli were found in the expectoration.

Dr. WALTER PEARCE exhibited a patient with Alcoholic Paralysis. For vomiting of pregnancy she had been treated by her mother with doses of brandy every half-hour. Abortion was induced, but the vomiting did not cease till the alcoholic habit was discovered and forbidden. When first seen the muscles generally were exceedingly wasted,

and there were anæsthesia and analgesia from the knee downwards. She had been treated by massage and galvanism. The points of interest in the case were the difficulty in detecting the cause of the emaciation and the exceedingly slow recovery.

Mr. TURNER showed a case of Supernumerary Cervical Rib in a woman aged thirty. It was situated on the left side, and had produced some shooting pain down the arm.

Mr. TURNER likewise exhibited a man aged fifty with a large Tumour occupying the upper and inner part of the left thigh. It had been noticed altogether for eight years, but for the last eighteen months it had grown rapidly. It was partly cystic and partly of bony hardness; he regarded it as a cystic enchondroma, partly calcified or ossified, and springing probably from the pubic bone.

Mr. SPENCER brought forward a case of Acute Specific Necrosis of the Superior Maxilla in a woman aged twenty-six. The palatal process had disappeared from the central incisor to the first molar tooth, and the cavity of the antrum was exposed, lined by pale mucous membrane.

Mr. KNOWSLEY THORNTON gave the details of a case of Abdominal Nephrectomy for a large sarcoma of the capsule of the left kidney or of the supra-renal capsule. The patient, a married lady aged thirty-six, with one child aged thirteen, was placed under Mr. Thornton's care by Dr. Black, of Halifax, Nova Scotia, suffering from a large abdominal tumour which had been diagnosed by Dr. Keith as an enlarged spleen, and treated by him during the previous twelve months by electricity, with supposed benefit. She had returned home with the tumour decidedly larger and increasing, and was anxious, if possible, to have it removed. Mr. Thornton's diagnosis was tumour in connexion with the kidney, probably sarcoma of the capsule, and he undertook its removal. The operation was performed on April 11th, 1889, and was a very formidable one, owing to the enormous size of the vessels in the adhesions and mesentery, the renal vessels which supplied the tumour being also enormously enlarged, so that the renal vein was as large as an ordinary vena cava. There were adhesions to the spleen and pancreas, the latter being very troublesome. The tumour weighed about 20 lb., and had a large healthy kidney attached to its lower border. The patient was much troubled after operation by accumulation of flatus in the descending colon, which had necessarily been much separated from its meso-colon. By the third week, however, the temperatures were generally normal and the pulse about 80. Later some symptoms arose which suggested lung trouble, but, as they always subsided during sleep and when the patient was amused or interested, they were thought to be hysterical, especially as no physical cause could be detected. Mr. Thornton, therefore, allowed her to leave town six weeks after the operation, and at Harrogate she passed under the care of Dr. Myrtle, who gave further details of her progress to the Society. In October, 1889, she was at home again, had gained 32 lb. in weight, could walk a mile without fatigue, and was practically well.—Dr. STEPHEN MACKENZIE said that Mr. Thornton had drawn attention to the differential diagnosis between tumours of the supra-renal body and those of the capsule of the kidney. He referred to the case of a child aged six who was admitted under his care with a globular tumour in the right hypochondrium. There was a history of a fall four months previously. The tumour was found to move with the liver during diaphragmatic action, it was very elastic, and the child was not anæmic or wasted. It was aspirated, and a few ounces of blood were withdrawn. At the necropsy a large soft vascular tumour was found beneath the liver; it sprang from the supra-renal capsule. He observed that the tumour was of a café-au-lait colour, and not like the brain-like colour of ordinary renal sarcoma. There were no renal symptoms in that case.—Dr. BARLOW had seen two cases of supra renal tumour like that described by Dr. Stephen Mackenzie; in both the colour of the tumour was a pale buff. They occurred in children of defective development, being coarse-skinned, rough-voiced, hairy, and below the average intellectual capacity. In both there was an entire absence of renal symptoms.—Mr. CROFT asked if the suppuration which occurred later went on outside the peritoneum, and whether the use of drain tubes would have obviated it.—Mr. THORNTON, in reply, said that both the tumours he had removed possessed a colour like ordinary sarcoma. It was interesting to observe that all five supra-renal tumours which had been referred to were free from renal symptoms. He had regarded the development of hair in the case of his patient as one of the occasional results of removal of the ovaries, when the female attempted to take on male attributes. These tumours were slow of growth and probably had some congenital germ in them, and this peculiar condition of the supra-renal body might, as Dr. Barlow suggested, determine a growth of hair in persons whose ovaries were removed. He had three times removed the tubes and ovaries for symptoms which he then regarded as ovarian, but which he now believed to be renal in nature. He thought the suppuration which followed depended on something which had escaped from the intestine, and which infected the plastic exudation.

Mr. CROFT then related a case of Ruptured Small Intestine without External Wound in which he had performed laparotomy, excision of the injured bowel, and enterorraphy. After introductory reference to the case already described in the Society's Transactions for 1888, in which life was saved for a time by the formation of an artificial anus, Mr. Croft gave the particulars of a second case of ruptured small intestine without external wound in which peritonitis was abolished and life permanently saved by excision of the injured bowel—enterorraphy—and purification of the peritoneum, after laparotomy. A boy aged fourteen was admitted into St. Thomas's Hospital on May 21st, 1889, at 10.30 P.M., for an injury to the abdomen. He had been kicked in the abdomen by a horse about three hours previously. The shock was not severe. Symptoms of acute peritonitis ensued during the night. Mr. Croft saw the case on the following morning, and diagnosed acute peritonitis, and thought it probably due to ruptured intestine. He decided to explore the abdomen immediately. Median laparotomy was performed fifteen hours and a half after the accident. A small rupture and a small ecchymosis of small intestine were discovered in the midst of inflamed omentum and coils of intestine. The injured segment of ileum was excised by a V-shaped incision. The mesentery and bowel were carefully reunited by forty Lembert's sutures and the soiled omentum was cut away. The peritoneum was carefully irrigated with a warm boric solution of about 20 per cent. strength. The operation was completed antiseptically. Full details were given. The patient made a speedy, feverless, and painless recovery. Mr. Croft discussed the symptomatology of such cases, and laid much stress upon the value of the symptoms of muscular rigidity and tension of the abdominal wall as indicating subjacent peritonitis. He repeated the reasons which he had before laid down for attempting an immediate radical cure in such lesions as the one under consideration—viz.: 1. That existing peritonitis, although it were septic, might be abolished, and the parts might be rendered aseptic. 2. That the existing peritonitis did not essentially prevent union of the peritoneal surfaces, for experience had now amply shown that these soiled parts might be purified and rendered fit for union. 3. That the empty and paralysed state of the recently ruptured or contused bowel (small intestine) was favourable for the technique of the operation. 4. It saved the patient from the consequences of an almost uncontrollable anus in the small intestine, such as general irritation and debility, and the local irritation which spread around the artificial orifice. 5. It saved the patient from the very serious risks, immediate and remote, of a second long and dangerous operation. And after observations on suturing, he gave a table of cases which strictly belonged to the category of ruptured intestine without external wound. This table included fourteen cases. The only permanently successful case was the one now presented to the Society. The only temporary recovery was the one already described by Mr. Croft in the Society's Transactions. The remaining cases were all fatal. The portion of bowel removed was exhibited, and the patient himself was present for inspection.—Mr. TREVES said that a good deal of attention had been paid of late to the treatment of these injuries of the intestine. Professor Senn of Chicago had stated that enterorraphy, as Mr. Croft had performed it, was an almost hopeless operation, and he had recommended an anastomosis of the gut; but the experiments which he had performed were on dogs and cats. These were practically useless, for the peculiar structure of the bowel of these animals was such that no kind of parallel could be drawn between it and human intestine; he doubted, indeed, if Senn's method was applicable to the human body. The method which Mr. Croft had adopted was a good one if every care were paid to the only weak margin of the wound. Regarding the question of the advisability of

establishing an artificial anus first, he said that if the bowel were resected for disease and immediate suture of the gut were resorted to, the result was usually bad, but if an artificial anus were first formed the prognosis was better; the anus could be closed by a subsequent operation. He related a case illustrating the ease with which an artificial anus in the small intestine could be closed. In operating for injury the patient's condition should be taken into account; if he were not fit to stand a long operation, then an artificial anus gave him the best chance.—Mr. KNOWSLEY THORNTON said that till recently intestinal surgery had lagged wofully behind other operations within the abdomen. When a lesion took place in healthy small intestine, he asked how far it was justifiable to refer to the escape of fæcal matter as septic, and was the resulting peritonitis a truly septic peritonitis? If it were really so, he was of opinion that a 20 per cent. boric acid solution would not have rendered it aseptic. He had often observed that the contents of a healthy bowel sank in water, whereas septic fæces floated. In any case, if the patient were collapsed, he would form an artificial anus and close it by a subsequent operation. He believed that keeping a Keith's tube in a pouch near the site of operation for twenty-four hours often saved a patient's life.—Mr. BRUCE CLARKE said that three months ago he was called to a case of strangulated hernia; he cut down and found an abscess connected with a piece of omentum. Next day, the patient not being relieved, he opened the peritoneum; he then found a portion of strangulated intestine, which gave way. He washed out the peritoneum with hot water, put in a Keith's glass tube, and made an artificial anus. The patient went on admirably for a fortnight, and then died of pneumonia. Post mortem there was no trace of peritonitis.—Mr. T. SMITH asked whether a lesion such as that described by Mr. Croft demanded a two-stage operation; he thought that the evidence went to show that it did. It was often a matter of very great difficulty to decide whether the intestine was wounded or not. Some years ago he saw a schoolboy who had fallen with his anus impaled on a lath, the latter having entered for nine inches. On examination the finger went through a hole in the wall of the rectum into a large cavity, presumably the peritoneal. The gut was washed out with warm water, opium was given, and the boy recovered without a bad symptom. Recently he saw a case in which it was presumed that a man had ruptured the intestine. He was apparently dying, with a tender distended abdomen. He walked out of the hospital well in three weeks.—Mr. CROFT, in reply, agreed that Senn's experiments on healthy dogs did not apply to diseased human intestine. With regard to the question of artificial anus *versus* excision of the bowel, he found that in his first case it was so easy to quash the peritonitis and thoroughly clean the peritoneum that he resolved if ever he had a second case he would finish off the operation at one sitting. It was necessary to be guided to a certain extent by the position of the rupture. If, for instance, one made an artificial anus in the jejunum, the patient would be speedily reduced to a state of inanition. If the rupture took place in the large intestine and were very extensive, he would probably entertain the idea of making an artificial anus first. As to the question of the septic character of fæcal discharge, he confessed that his own opinion was against its being aseptic. The peritonitis was quite circumscribed, and he did not leave a drainage-tube in. The cases Mr. Smith had described did not seem analogous to the one he had related.

MEDICAL SOCIETY OF LONDON.

Ligature of Carotid for Aneurysm.—Inguinal Colotomy.—Unusual Aortic Diastolic Murmur.—Fistula in Ano cured without Division of Sphincters.—Athetosis.—Hip-joint Excision.—Syphilitic Stenosis of Pharynx.—Symmetrical Trophic Lesions of Nails.—Plastic Operations on Face.—Electric Cystoscopy.

A "CLINICAL" MEETING of this Society took place on March 17th, the President, Mr. J. Knowsley Thornton, in the chair.

Mr. ROSE showed a case of Aneurysm of the Upper Part of the Common Carotid Artery, which had been cured by proximal ligature of the vessel. Two ligatures had been applied and the artery divided between. The man was twenty-five years of age, and was employed as a general porter. The operation was performed four months ago, and the aneurysm had completely disappeared except a small fibrous nodule in the upper part of the neck.

Mr. ROSE also exhibited a gamekeeper aged sixty, on whom he had performed Inguinal Colotomy by a new method on Nov. 7th. With strict antiseptic precautions, an incision was made about four inches long at right angles to an imaginary line drawn from the anterior superior spine of the ilium to the umbilicus, rather nearer the spine than the umbilicus. An opening having been made the descending colon was found, and a thread of catgut passed through one of the longitudinal bands and the bowel put back, whilst the parietal peritoneum was sewn to the skin with fine catgut. The descending colon was then pulled out by means of the guiding thread; and, in order to ensure the whole coil of intestine remaining outside the abdominal incision, a double thread of strong catgut was passed through the meso-colon and both edges of the wound in such a way as to bring the parietal peritoneal surfaces together behind the protruding intestine. (Mr. Rose hoped by this procedure to establish a complete separation between the upper and lower opening of the bowel when subsequently divided.) The colon was then sewn to the peritoneal and cutaneous margins with fine catgut sutures. The wound was dressed on the fourth day, and again on the seventh, when the bowel was opened. The temperature never rose above 99°. Beyond a little griping pain before the bowel was opened the patient had been comfortable. On March 17th he was gaining flesh, and was free from pain; bowels regular. During the last four weeks he had not passed any fæcal matter by the rectum, showing how complete was the separation of the upper and lower opening of the gut.—Mr. H. ALLINGHAM thought that there was rather too much prolapse, which could have been prevented if more of the intestine had been cut away when the gut was opened.

Dr. DE HAVILLAND HALL exhibited a man fifty-two years of age, with a loud Aortic Diastolic Murmur. The murmur was audible all over the chest, the point of greatest intensity being on the right of the sternum opposite the fourth interspace. The murmur was also distinctly heard when the ear was at a distance of eight inches from the chest. A soft systolic murmur was audible at the right base. A well-marked diastolic thrill was to be felt to the right of the sternum. The patient, now a porter, had formerly served in the navy. He had suffered from ague and syphilis, but there was no history of rheumatic fever.—Dr. SEYMOUR TAYLOR had seen a case in which a murmur of similar character existed, and which he demonstrated post mortem to be due to a ruptured aortic valve.

Mr. GOODSALL showed three patients to illustrate his method of treating Horseshoe Fistula in Ano without division of the sphincters. The first patient was shown for the sake of contrast; he had been operated on in the usual way, by division of the sphincters. Though the operation was performed six years ago, he still had absolute loss of control over his motions. The second and third patients, who were men aged respectively fifty-two and thirty-six, had been completely cured in a few months by his method, without division of the sphincters. He made an incision which followed the sinus and ran across the posterior part of the ischio-rectal fossa; this would only divide the posterior attachment of the external sphincter, and in most cases this procedure alone would allow the opening to close. It was quite unnecessary, in laying the fistula completely open, to divide the internal sphincter.

Mr. GOODSALL also exhibited a man aged thirty-seven with Sinuses over the Sacrum and Coccyx. In four years he had seen seven such cases, and six of them had got well by laying open every sinus to its end. The history was that in April, 1887, the horse the man was driving bolted, and he was violently thrown back against the box of his cart. A year later he had rheumatic fever, and three months afterwards an abscess formed behind the anus. A burrowing track was found to enter the pelvis through the sacro-sciatic notch and to come down again beside the anus. He had enlarged all the openings and injected them with a saturated solution of nitrate of silver. The six other cases he had seen were in females, in the whole of them the disease occurred on the left side, and they were under forty years of age.—Mr. H. ALLINGHAM agreed that it was unnecessary to divide the internal sphincter in cases of horseshoe fistula.—Mr. BLACK maintained that the internal sphincter was not divided as a rule in the ordinary operation for fistula.—Mr. GOODSALL replied that wherever permanent

loss of power was found to exist over solid or relaxed motion, in such cases the whole of or part of the internal sphincter must have been divided.

Dr. BEEVOR showed a man aged twenty-seven suffering from Athetosis, the movements involving the face. Two years ago he fell downstairs, striking the left side of the head. He was unconscious for ten minutes; on recovery he noticed that he had movements in the right thumb and in the right side of the face. A week later movements commenced in the fingers, a fortnight later in the elbow and shoulder, and four weeks later in the lower limb in the order of hip, knee, and foot. There was no anæsthesia and no aphasia. At the present time he had partial paralysis of the right side of the face; there was marked athetosis of the right hand, and at times involuntary movement of the elevator of the right upper lip. There was no absolute paralysis of the right upper limb; there were stiffness and slight movements of the right foot; there was no tenderness or pain over the head. The case was important as occurring after injury, and also that the order of invasion corresponded to the arrangement of the different parts on the cortex. He thought the lesion was probably a hæmatoma on the cortical area over the region of the centres of the face and thumb. The movement of athetosis occurring in the face was very unusual. The treatment recommended was trephining over the centre for the face and the elevator of the upper lip.

Mr. KEETLEY exhibited two cases of Excision for Hip-joint Disease, in which drainage by posterior openings had been adopted, and in which union took place by first intention. In the first case, that of a boy aged five, the head was reached by a semilunar incision with the convexity downwards, exposing the top of the great trochanter. It was an incision which had been advocated by Thomas of Liverpool, and which, though now disused, gave good access to the joint. After the removal of the head of the bone the great trochanter was sutured to the rim of the acetabulum. In the second case, that of a girl aged fourteen, the bone was reached by an anterior incision. The operations in both were done about a month ago, and Mr. Keetley argued that keeping the hip-joint fixed ensured healing in a few weeks, and that drainage was no bar to healing by first intention.

Dr. ACLAND showed the case of a hat blocker from Luton who was suffering from a Symmetrical Trophic Lesion of the Nails. It commenced in the left ring finger nail three months previously, which became separated from the matrix; the affection quickly extended to all the other fingers of the some hand and then to those of the right hand and to the toes. The ends of the fingers were clubbed; under the nail secretion had accumulated which had become impregnated with dust, and the nail was much altered in structure. Various intepretations of the condition had been given; he himself thought it was some form of Raynaud's disease, and this was confirmed by a suspicious redness, looking like a chilblain, along the upper margin of some of the nails. There was no specific history and there was nothing in the work to produce the disease. The patient did not suffer pain, there was no permanent lesion of the lungs or heart and no hæmaturia.—Dr. COLCOTT FOX said these cases were interesting on account of their obscure nature and the difficulty in their treatment. In association with small-pox, psoriasis and syphilis papules under the nail were not uncommon, but the present case was an entirely different affection. His own prepossession was in favour of syphilis as a cause.—Dr. SEYMOUR TAYLOR thought it was not Raynaud's disease, because intense pain was not complained of; but it agreed with that affection in being essentially a vascular lesion.—Mr. BRUCE CLARKE had seen a similar condition produced by arsenical poisoning. He looked upon it as a local lesion.—Mr. BALLANCE related an instance of marked Raynaud's disease which had come under his notice in which there was no pain at all.—Dr. ACLAND replied that in Raynaud's disease the pain depended on the severity of the affection. Local manifestation of a disease did not preclude its central origin.

Dr. COLCOTT FOX exhibited a case of Stenosis of the Lower Part of the Pharynx, due to hereditary syphilis. A girl of fourteen years presented a perforation of the soft palate, adhesion of the soft palate to the posterior wall of pharynx, shutting off the naso-pharynx, and a buttonhole stenosis of the lower part of the pharynx about the site of the attachment of the epiglottis. The latter was destroyed, and immediately through the whole were seen the openings of the larynx and œsophagus. The larynx was healthy. The gummatous infiltration began three years ago, when there was coughing up of "phlegm" and occasionally blood. There were no other signs of hereditary syphilis in the bones, eyes, teeth, or other parts. On admission she had considerable stridor and attacks of crowing inspiration, culminating in cough. All the infiltration had disappeared under iodide of potassium, and she now swallowed and breathed with great ease. Lesions of the lower part of the pharynx and the larynx occurring as a part of so-called late hereditary syphilis were well known, though they were not at all common. The case was interesting on account of the peculiar features of the stenosis and its site immediately above the origin of the larynx and œsophagus.

Mr. BALLANCE showed a case of a boy aged seventeen, a greengrocer's assistant, who presented Congenital Hemi-hypertrophy of the Head and Hypertrophy of Certain Toes. The enlargement of the left side of the head and face was noticed ten days after birth. The mother said the boy was rather "simple" The hemi-hypertrophy was most marked in the lips, nose, pinna, tongue, tonsil, and external auditory meatus. The second and third toes of the left foot and the third and fourth toes of the right were hypertrophied.

Mr. BRUCE CLARKE showed a case illustrating the result of Plastic Operations on the Face after removal of Anthrax. The patient, who was admitted into St. Bartholomew's Hospital on Nov. 9th, 1888, was a worker in raw hides. His face was swollen up almost beyond recognition, and a malignant pustule with a black slough in its centre was freely removed from just below the lip. The deformity was subsequently remedied by three plastic operations. Photographs of the patient in various stages were shown, and a full account given of the operations.

Mr. HURRY FENWICK brought forward a patient aged fifty-two, who had applied for relief of symptoms characteristic of Enlarged Prostate (atony and hæmaturia), but in whom, upon rectal examination, no enlargement of the prostate could be discovered, and in whom the median lobe of the prostate was proved to be normal in size by means of the electric cystoscope. A deep diverticulum was, however, discovered on the left side of the trigone, by the left ureteral orifice. The sharp edge of the deep recess was ulcerated and covered with phosphatic débris and mucopus; it contained no stone; and the rest of the bladder was found to be in a state of mild chronic cystitis. The bladder was illuminated, and these conditions were demonstrated to the Society. Mr. Fenwick alleged that such cases of pseudo-prostatic disease were not at all uncommon. Since supra-pubic prostatectomy had been the fashion, some bladders had been opened in the expectancy of the removal of the obstructing outgrowth, but none had been found. This mistake could have been prevented by using the cystoscope first. Fasciculation was most common; sacculation not infrequent.—Mr. BRUCE CLARKE had met with three cases of encysted calculi, which often gave rise to puzzling symptoms.

Mr. STEPHEN PAGET exhibited a case of Tuberculosis of the Gums and Lip occurring in a woman aged twenty-six. The disease was first noticed three years ago; it had been scraped, but had since recurred. There were other signs of tubercle present, and there was a family history of phthisis.

OPHTHALMOLOGICAL SOCIETY.

Primary Glaucoma at the age of twenty-two.—Spontaneous Purulent Hyalitis nine months after successful Cataract Extraction.—The Metre Angle in Latent and Manifest Muscular Deviations.—Immediate Effect of Tenotomy on the Concomitancy of Squint.

AN ordinary meeting of this Society was held on the 13th inst., Dr. Hughlings Jackson, President, in the chair.

Mr. SPENCER WATSON read notes of a case of Primary Glaucoma at the age of twenty-two occurring in a woman the subject of micro-ophthalmos and hypermetropia. The patient was engaged in needlework for sixteen hours daily when she came under observation. Both eyes were glaucomatous, the right eye being more affected than the left. Operation was advised, but was not consented to till four weeks later, when double iridectomy was performed. The left eye improved and tension remained normal. A second

iridectomy was performed on the right eye, but not much improvement in vision resulted.—Mr. W. J. COLLINS asked if Mr. Watson had measured the corneæ in this case.—Mr. BRAILEY cited the case of a girl aged eighteen, under his care, in whom glaucoma had supervened on micro-ophthalmos; in this instance there was also complete irideremia. Tension had been relieved by an equatorial scleral puncture.—In reply, Mr. SPENCER WATSON said he had not measured the corneæ: there was no doubt about the micro-ophthalmos.

Dr. BERRY communicated a case of Spontaneous Purulent Hyalitis, occurring nine months after successful cataract extraction (read by the secretary). The patient, aged fifty-three, a glass-blower by trade, was operated upon for cataract of left eye on March 19th, 1889. Everything went well, and he left the hospital on the eleventh day, the wound being then soundly healed. Vision with + 11 D was $\frac{2}{3}\frac{0}{0}$. Patient resumed work a month later. On Dec. 20th he was readmitted with intense pain in, and almost complete loss of vision of, the left eye. He had left work at 4 P.M. the previous day, and was reading until 9 P.M. At midnight he was awakened with severe pain in the globe, and on presenting himself twelve hours later there was acute purulent iritis, with hypopyon; T + and vision reduced to counting fingers with difficulty. No improvement took place, and the eye was enucleated on Jan. 2nd, 1890. Immediate examination of the eyeball showed extensive purulent infiltration of the vitreous, with abundant hæmorrhages in the retina, the choroid being to all appearance healthy. Microscopic sections showed that there had been accurate apposition of the lips of the corneal wound. The iris was nowhere adherent to the cicatrix, but there was a slight flat attachment to the cornea in front of it. The suppuration appeared to have commenced behind the margin of the cornea, where a few cocci were found scattered among the cells. The choroid and deeper layers of the retina appeared healthy. Dr. Berry said that the possibility of a sudden violent septic hyalitis taking place spontaneously so long after an extraction was new to him, and the case was all the more astonishing in that, not only with respect to the acuity of vision, but also from an operative point of view, it had been completely satisfactory. A somewhat similar case had occurred in Dr. Argyll Robertson's practice. Nearly eleven months after a successful cataract extraction the eye had to be removed for suppurative panophthalmitis. This case further resembled the writer's in that the patient was exposed to great heat. The sudden onset and malignant nature of the inflammation left no doubt that it was the result of septic infection; but as it was quite impossible that micro-organisms introduced at the operation could retain their vitality so long without showing signs of activity, there must have been some recent inoculation of the cicatricial tissue. This explanation was that adopted by Mr. Swanzy, who in 1871 published three cases in which peripheral prolapses of the iris had been followed after a prolonged interval by a spontaneous and incontrollable purulent iridocyclitis. The presence of micro-organisms in such cases was demonstrated by Leber in an article in *Graefe's Archiv*, 1878, on "The Intercellular Spaces of the Corneal Epithelium." He stated that the bursting of an attenuated portion of a peripheral anterior synechia took place either spontaneously or as the result of a trifling lesion, and infection began at this point. Dr. Berry had lately been able to confirm this supposition by the discovery of micrococci in the vitreous in a case in which purulent hyalitis took place a long time after a perfectly normal iridectomy for glaucoma simplex. Mr. Priestley Smith had recorded a case of purulent hyalitis occurring spontaneously in an eye two years after cataract extraction. In this case there had been a slight encleisis of the iris. In one mentioned by Arlt there was a prolapse of iris the size of a pea incorporated in a cystoid cicatrix, from which, after fifteen years, a sudden panophthalmitis originated.—Mr. BRAILEY spoke of a case of spontaneous, bilateral, purulent hyalitis which was associated with obstinate constipation; and suggested the possibility of autogenetic septicæmic infection as having a share in inducing the condition.—Mr. MARCUS GUNN mentioned a similar case in which purulent iritis and hyalitis occurred three weeks after cataract extraction, without any prolapse or adhesion of iris, the cornea remaining clear.—Mr. NETTLESHIP laid stress on the importance of these cases both from a clinical and pathological standpoint. He was familiar with cases in which an eye, blind from old corneal affections or glaucoma, suffered from violent inflammatory attacks similar to that mentioned, though, whether this occurred in the absence of any previous perforation, operative or otherwise, he could not say. Though spontaneous iritis, not following operations, as cases of pseudo-glioma, might be due to septicæmia, the supposition did not aid the explanation of the present cases. It was remarkable that in both instances cited, the eyes had been exposed to great heat.—Mr. BRAILEY said there was no doubt that some eyes suppurated without local wound, as after glaucoma which had not been operated on. Between pseudo-glioma and the present instances there was the marked distinction that in the former suppuration was limited to the vitreous and retina, the choroid escaping, so that the globe, though soft, retained its bulk, whereas in panophthalmitis it quickly shrank.—Mr. WAREN TAY mentioned a case of purulent hyalitis or panophthalmitis in one eye following immediately upon the arrest of discharge from an abscess in the side. Enucleation was performed, and the vitreous was found full of pus. There was no local inoculation. He also mentioned an instance of a woman losing both eyes by a condition resembling pseudo-glioma, after confinement. There was shrinking of the globes, the septic disease was probably embolic.—The PRESIDENT alluded to an observation made by him some years ago that there appeared to be swelling of the discs in pyæmia; this might also be the case in the surgical disease.

Dr. BERRY communicated a note on the Metre Angle in Latent and Manifest Muscular Deviations (read by the Secretary), in which he expressed the opinion that the employment of Nagel's metre angle notation as a standard of measurement in muscular deviations was not largely in vogue. If it was worth while to measure deviations at all, it was only consistent that, having adopted the metrical system of measuring refraction, we should note the deviation in metre angles, especially as the measurement of latent squint could be made in metre angles or fractions of them as quickly as the determination of the visual acuity in the ordinary way. This was not the case with manifest deviations, but it could be said that no more time was necessary to estimate the angular deviation in metre angles than in degrees. Dr. Berry pointed out that in Nagel's notation the degree of convergence, and not merely of deviation, had to be determined, and showed that the former was, in any case of squint, only half the latter. The proper existing association between accommodation and convergence in the case of a squint was given by the measurement in metre angles of half the angular deviation.

Dr. BERRY also furnished a paper on the Immediate Effect of Tenotomy on the Concomitancy of a Squint, which, in his absence, was read by the Secretary. Dr. Berry first explained that he referred to complete tenotomy, and not to the so-called "partial" tenotomies, as to the justification of which he was more than sceptical. He had been in the habit of measuring, not only the amount of the deviation of the squinting eye, but also the accuracy of the concomitancy—that is, determining the amount of error in convergence (positive or negative), not only in the primary position, but also when the object of fixation was carried about 30° to either side. As soon as the scleral attachment of one of the recti had been divided, the concomitant character of the squint was lost, and the degree of effect produced by the operation varied according to the direction of fixation. For instance, after division of the right internal rectus, the effect of the operation would be greater as the fixing eye was removed from the middle line towards the left, and less when moved in the opposite direction. The greater effect to the left was obviously due to insufficiency of the right internal rectus, resulting from the operation; but why should the effect continue to diminish after the axis of the deviating eye had crossed the middle line and was directed outwards?—Mr. DOYNE alluded to the benefit often derived in cases of migraine by correction of errors of refraction, and asked the President if migraine might not be considered as a species of epilepsy.—The PRESIDENT admitted that, scientifically considered, he had no doubt migraine was a species of epilepsy, but that practically they were widely different, and rarely if ever interchangeable.—Mr. BRAILEY and Dr. JAMES ANDERSON referred to cases in which full correction of ametropia produced no curative effect upon cases of migraine.

The following patients and card specimens were shown:—

Mr. MARCUS GUNN: Two cases of Superficial Punctate Keratitis.

Mr. BEAUMONT: A case of Neuro-retinitis.
Mr. REDMOND (Dublin): An Electric Drill for Discission of Tough Capsule after Extraction.
Mr. MACKINLAY: Traumatic Irideremia and Aphakia with Retention of Good Vision.
Mr. DOYNE: (1) A case of (?) Tuberculosis of Choroid; (2) a case of Paresis of both External Recti.
Mr. W. J. COLLINS: Cast of an Eyeball, with Equatorial Staphyloma, following complete Glaucoma.
Mr. STANFORD MORTON: Fibrous Changes at the Optic Disc.

HARVEIAN SOCIETY.

Exhibition of Living Specimens.

THE meeting held on Thursday, March 6th, was a clinical evening, the President, Mr. Thomas Bryant, in the chair.

Dr. LEES showed a case of Myxœdema of seven years' duration. He also exhibited a case of Neuralgic Headache in a Girl, who presented such severe symptoms that it was at first feared that a cerebral tumour might be growing. The patient made a complete recovery after the extraction of three teeth.—Dr. Cleveland and Mr. D'Arcy Power commented upon the interest of the case.

Mr. JACOBSON showed a case of Popliteal Aneurysm which was cured by six hours' digital compression. The patient was a man aged forty-seven, who had suffered from syphilis thirty years ago. In introducing this case, Mr. Jacobson said he believed that rhagades, popliteal aneurysm due to syphilis, and very extensive gummatous ulcers were now less frequent than they used to be.—Dr. NORMAN KERR said he believed that prolonged extension as well as prolonged flexion of the leg was capable of causing a popliteal aneurysm.—Mr. J. ERNEST LANE asked about the pathology of the cure, and remarked that the clot in the aneurysm was very soft, and was therefore liable to be broken down. From his experience at the Lock Hospital he was able to endorse Mr. Jacobson's remarks as to the increasing rarity of the more severe manifestations of syphilis.—The PRESIDENT alluded to the advantages possessed by digital over instrumental pressure in the cure of popliteal aneurysm.

Mr. JOHNSON exhibited a child aged three months who had a very fairly developed Supernumerary Leg with an additional portion of pelvis. Mr. Johnson accounted for the additional limb by supposing that the case was one of modified posterior dichotomy.

Dr. MAGUIRE showed a young man who was said to be unable to move his left arm freely and who appeared to present many of the characters of a patient with paralysis of the deltoid and biceps muscles. He also appeared to have some stiffness of the lower extremities.—Drs. Savile, Ewart, Lees, and Norman Kerr discussed the peculiarities of the case, and decided that the diagnosis lay between a modified form of pseudo-hypertrophic paralysis and malingering, though they were inclined to think that the balance of evidence pointed to nerve disease.

Dr. SAVILE brought forward a man with a Cerebral Tumour, which he localised as involving the upper end of the right fissure of Rolando. The patient had hemiplegia of the left side after a severe fit, with the signs of a descending lesion. He had lately suffered from attacks of Jacksonian epilepsy.—Dr. Cagney and the President discussed the case.

Dr. SAVILE also exhibited a case of Elephantiasis Telangiectodes, in the person of a girl aged sixteen, who had many subcutaneous tumours on the backs of her thighs and legs. The swellings were increasing so rapidly that she had been compelled to give up her occupation in consequence of the sense of weight and fatigue caused by standing.—Mr. J. ERNEST LANE thought that in these tumours fat predominated over the vascular and fibrous elements.—The PRESIDENT was inclined to think that the tumours were degenerating nævi.

Dr. CAUTLEY showed two adults who had each marked Shortening of One Humerus. This deformity, he considered, was consequent upon long antecedent inflammation of the cartilage between the head and shaft of the bone.—Mr. BRYANT said that he had seen several similar cases, though they were undoubtedly rare, and he thought that the explanation given by Dr. Cautley was undoubtedly the correct one.—Dr. LEES thought that such cases were nearly always associated with a syphilitic taint, and that during the acute stage they were not unlikely to be mistaken for infantile paralysis.

Mr. LOCKWOOD sent a boy aged seven years, whose left hip he had excised a year ago by the anterior incision. The boy was able to walk well without supports.

Mr. D'ARCY POWER showed a boy with Advanced Rickets of a somewhat unusual form.

HUNTERIAN SOCIETY.

President's Address.—Tender Feet in Psoriasis.—Glycosuria.

A MEETING of this Society was held on Wednesday, Feb. 26th, Dr. Stephen Mackenzie, President, in the chair.

The PRESIDENT, on taking the chair, proceeded to point out the advantages of medical societies in aiding individual medical workers and so benefiting the community. When he was thrown on his own resources he at once experienced the need of association, and wanted to know if his own observations were accurate, whether his conclusions were just, and whether, when he put his theories into practice, the effects he observed corresponded with the experience of others. At a medical society the individual worker obtained just the assistance he stood in need of, and lost the bias which one was always exposed to. Much of the best work of the most distinguished members of our profession had been brought before a medical society in the first instance, and the preliminary sifting which they had there undergone had been of great service in eliminating error and adding completeness to the views put forth. Further, there were many who had not the time or opportunity of communicating their knowledge in writing who could aid the work of others by contributing their experience at a medical society. The President proceeded to give an account of the history of the Society from its establishment until the managers of the London Institution in time of emergency opened its doors to the Society, where it had continued to meet until the present time. A "scare" was experienced a year or two back by a whisper that the London Institution could no longer find room for the library—an important feature of the Society, rich in old and rare works, although wanting completing in modern medical literature. The President said: "We cannot but feel a sense of insecurity of our tenure of present accommodation, not from want of consideration on the part of the managers of the London Institution, but because our needs and their own may outgrow their capacity to contain us. The value of property in the City of London is so high that we cannot look to our own efforts alone to securing for us a proper habitation. It is in these circumstances that we feel we may legitimately appeal to the corporation and great City companies to come to our assistance. The Hunterian Society has always been a City society, and is the only medical society in the City of London. The corporation and City companies have always offered encouragement to educational and kindred institutions. We hope that, when our wants are known, the assistance they can so readily afford will be given us. A few thousand pounds would enable us to establish ourselves under a permanent roof, free from the anxieties of precarious existence, with ample room for our valuable library, and perhaps in course of time a laboratory for scientific investigation. The City of London might thus obtain a medical institution with an honourable history and record of good work, of which it might be proud."

Dr. HINGSTON FOX showed a case of Psoriasis in a man aged fifty-nine years, which had existed for fourteen years at intervals, and was now attended by much tenderness under the heels, where the epidermis is thickened and hard. The man walks much, and the foot is flat. Treatment had as yet been in vain. A high-arched boot, air-pads, and salicylic plaster were suggested.

Dr. HINGSTON FOX also read a paper entitled "Notes and Cases illustrative of Glycosuria as distinguished from Diabetes." Case 1 was that of a stout old lady of eighty-one years, subject to severe recurring eczema and erysipelas, sometimes combined;[1] also to "gastric crises," resulting in diarrhœa; and to superficial glossitis, tinnitus aurium, and double cataract. For five years past the urine had generally contained some sugar, sometimes as much as 5 per cent., the specific

[1] Reported in Brit. Med. Journ., vol. ii. 1886, p. 737.

gravity ranging from 1013 to 1029. The general health did not suffer. Case 2, a stout lady of eighty-six, fell ill two years ago with profound disturbance of digestion and severe crises, attended with abdominal pain, vomiting, hard white stools, bile-stained urine, and glycosuria. The sugar was never in large quantity, scarcely exceeding 1 per cent., and the specific gravity not above 1029. She wasted and nearly died of asthenia, but grey powder and sulphate of magnesia always relieved her at the crises, and she eventually recovered. In Case 3 glycosuria was found once during a sharp gastric crisis in a gentleman aged fifty-five, the subject of oxaluria and hypochondriasis. Dr. Fox suggested that a glycosuric "storm," as illustrated by these cases, was one form of what were known as "bilious attacks." Dr. Buzzard and Dr. E. Long Fox would appear to include the condition in their recent descriptions[2] of "Nerve Storms affecting the Medulla Oblongata." Case 4 was an instance of the glycosuria of acute febrile disease. A gentleman aged thirty-five was struck down by severe broncho-pneumonia affecting most of the left lung, and threatening life. The urine was very copious, over 3000 cub. cent. (110–120 ounces) daily; urea was discharged in great quantity, 65 to 82 grammes (1000–1200 grains) daily. A little sugar was found on the second day, and traces as late as the fifth day of the disease. A fortnight later the urea had fallen to 22·3 grammes. Allusion was made to other cases of glycosuria, associated with pregnancy and the puerperal state, and some cases without any obvious causation. Dr. Fox discussed the causes of glycosuria as detailed recently by Dr. Ord, and put forward the hypothesis that in many cases of diabetes the liver was *overacting*, glycogen was transformed too quickly, and these cases required opium or codeina; whilst in many cases of glycosuria apart from diabetes, and especially in those attended by the crises described, the liver was *inactive*, glycogen was insufficiently formed, and the sugar of the portal vein passed unconverted into the circulation. These cases were relieved by mercurials and saline purgatives. The state of the biliary function might afford some guide to the activity of the liver. In conclusion, a ready method was shown of ascertaining the approximate percentage of sugar present, by comparing the colour assumed by Fehling's solution with a standard scale.—Drs. Gilbert, F. J. Smith, and Fendick, Messrs. Tubby and F. R. Humphreys, and the President, discussed the paper.

Reviews and Notices of Books.

Die Allgemeine Pathologie, oder die Lehre von den Ursachen und den Wesen der Krankheitsprocesse. Zweiter Theil, *Störungen des Baues und der Zusammensetzung: Allgemeine Path. Morphologie.* (*General Pathology, or the Study of the Causes and Conditions of Disease.* Part II., *Disorders of Structure and Composition: General Pathological Morphology.*) Von Dr. EDWIN KLEBS. Jena: Gustav Fischer. 1889.

THE task which Professor Klebs has undertaken—viz., to give a complete critical and analytical description of the facts of general pathology as at present known—has been carried a step further in the publication of this volume, dealing with pathological morphology, and embracing upwards of 800 closely-printed pages. It may be recalled (*vide* THE LANCET, vol i. 1887, p. 1237) that in the first part of this important treatise Professor Klebs dealt with etiology, and especially with bacteriology. The third and final part is to be devoted to functional derangements—pathological physiology. The present volume covers all the ground not long since embraced under the phrase "general pathology," but which has now become strictly only one portion of that wide field. In an interesting preface the author pleads for the amplest possible treatment of the subject, and claims for the pathological student of to-day a keener zest for inquiry and a lessened reliance upon the dogmatic teachings of authority than was formerly prevalent. All structural lesions must, he truly says, be referred to normal tissue life, and he points out how the great advance made by Virchow in his famous Cellular Pathology has not been upset, but rather modified and extended by modern research, which has directed attention to the nuclear changes, on the existence of wandering cells and phagocytes. Virchow himself has pointed out that the adoption of the facts of bacteriological discovery has greatly enlarged the conception of the powers and functions of cell life, which proves how well grounded was the original fruitful conception.

It may, perhaps, be of some value to glance through the pages of this treatise, and see how Professor Klebs deals with a subject now well worn, but of which the final word is far from having been said. He opens with the subject of Necrosis, and after a detailed account of the process of putrefaction, proceeds to describe the various modes in which local death is brought about, and the nature of the tissue changes that ensue. His breadth of view will be understood when we say that, commencing with the effects of embolic plugging of vessels (as observed experimentally and in disease), he next considers the formation of perforating ulcers of the stomach and duodenum. Although he shows that undoubtedly such ulcers are associated with stasis in the vessels, he admits the remaining difficulty of explaining their precise pathogeny, dwelling upon their formation in association with extensive burns of the surface (in one case he had an opportunity of examining a gastric ulcer formed within four days of a burn, and found the vessels thrombosed), and pointing out that such cases cannot invariably be attributed to the circulatory disturbance due to spasmodic contractions of the stomach. The neuritic origin of perforating ulcer of the foot is dwelt on, and, by the same happy capacity of taking a broad view of the subject, he leads the reader on to consider the effects of chemical agents and blood poisons in producing necrotic lesions in the kidney (as by chromic acid) or intestine (as by sublimate), and in the hæmatolysis which is now generally conceded to underlie the condition of hæmoglobinuria. The Degenerations are next considered, and in fatty degeneration stress is laid upon the "cell asphyxia" or diminished supply of oxygen as a great factor, of which illustrations are to be found in poisoning by carbonic oxide and phosphorus, the conditions of which are most exhaustively treated. The carbohydrate products of fatty degeneration are especially studied, the facts narrated being novel and interesting. Under the head of Albuminous Degeneration are discussed colloid and mucous metamorphosis, and especially hyaline transformation, a process which takes place to a remarkable extent in thrombi. Amyloid degeneration is considered to be allied to the hyaline form. Its consideration is followed by a chapter on Pigmentary Degenerations, which are grouped under the heads of (1) Hæmatogenous (especially Hæmosiderosis), (2) Albuminogenous (as in melanotic tumours and Addison's disease), and (3) Biliary. Then comes the subject of Degeneration through Inorganic Agencies, in which, by a somewhat strained use of the term, are included the deposits of dust particles (koniosis) in the lungs and their dissemination through the lymphatics and bloodvessels, as well as what are termed the "precipitation diseases," of which he distinguishes the endogenous varieties, including deposits of pigment and fat (fat embolism), calcification, and the formation of calculi—renal and hepatic, and the exogenous, as seen in "argyria," exemplified by deposits of the mineral in internal organs. A bare enumeration like this can give but a faint idea of the thorough and exhaustive manner in which these topics are dealt with.

The subject of Atrophy is shown to be bound up with many physiological processes. Particular stress is laid upon the functions of ganglion cells in promoting nutrition, and the trophoneuroses consequently receive much attention. The subject of pressure atrophy is made to include many con-

[2] THE LANCET, pp 179 and 345 of current volume.

genital defects, such as micromegaly, microcephalus, and even spina bifida. Then Rickets and Cretinism are elaborately discussed, and comparison made between the changes in the former and so-called fœtal rickets. Under the head of Progressive Pathological Processes the subject of Inflammation is first treated. Upon this process, which is defined as the reaction of the organism to injury, it must suffice to be noted that Professor Klebs admits that although leucocytal emigration is an essential fact, yet that the fixed cell elements—not merely the connective tissue cells, but others also—take a prominent share. The subject of Regeneration naturally follows, and its modes in various tissues are discussed. Nor is the *rôle* of the "phagocyte" neglected. Indeed, nothing seems to have escaped the author's attention. Hypertrophy and new growths are so intimately allied that Professor Klebs has done well in associating them in his next chapters, and in his usual thorough manner he enters fully into general considerations upon these important subjects, in which the probable share taken by karyokinesis is not lost sight of. His considerations lead him to formulate two important data—viz., that all tumours are formed by a hyperplastic development of all constituents of the affected organ, and that by a gradual further development of a formation corresponding to the normal type there may appear elements in a tumour which are quite atypical. Using the term "blastoma" as expressive of the substratum of all forms of tumour growth, his classification is at once novel and suggestive. It is as follows: (*A*) Typical Blastoma. Where the increase takes place within the limits of typical formation of tissue and organs. The relations of the tissues to each other normal; the condition is really one of hypertrophy, or giant growth. A remarkable example of it in its partial character is to be seen in acromegaly. (*B*) Atypical Blastoma. Here the formation arising in a typical way becomes *atypical*, and proceeds on lines varying from those of normal structure. There are two main classes. I. Parablastoma, composed of derivatives from the mesoblast. 1. Leucocytoma or granuloma, as tubercle, gumma, leprous nodules, &c. 2. Fibroma. 3. Endothelioma. 4. Angioma or angioblastoma. 5. Lymphoma and myeloma (i.e., from bone-marrow). 6. Lipoma. 7. Myxoma. 8. Osteoma and chondroma. 9. Myoma. 10. Sarcoma, which are distinguished from the rest of the class by retaining embryonic features. II. Archiblastoma, or tumours composed of or derived from tissues of the outer germ layer (the archiblast of His), but which yet depend for their nutritive supply upon mesoblastic elements—(1) Epithelioma and Adenoma; (2) Epithelial Carcinoma; (3) Neuroblastoma. So that this strictly phylogenetic classification requires the association with the cancers of such rare and benign forms of growth as true neuromata, and a disregard of the dividing characters of malignancy and benignity. But as to malignancy, it is right to say that Professor Klebs in a previous passage points out how much there is to learn concerning the property of metastasis, which confers this character upon a neoplasm; how even, as seen in transplantation, normal tissue cells may have this power, which by certain pathological conditions may be enhanced. Lastly, the third great division of tumours is (*C*) Teratoma, or the embryogenic blastoma, which are divided into those that are endogenous, such as branchiogenic chondroma and dermoids; and the ectogenous, including instances of fœtal transplantation &c.

Although we have thus cursorily traversed the pages of this exhaustive work, we are not unmindful of its importance or of the spirit in which it has evidently been written. It claims to be, and it deserves to be, regarded as a comprehensive view of the products of the extensive and laborious researches of a generation of pathological inquirers. Moreover, it is written in a philosophical spirit, and by no means dogmatic, so that it ought to be welcome to a wide circle, and mark the limits attained by this branch of pathology at the present day. Nor must mention be omitted of the lavish profusion of lithographs with which it is furnished. It will be seen that it is not a book that can be merely read as a pastime. It requires careful and thoughtful study, and much as its author deprecates the imposition of "authority" in science, yet we venture to think it will often be referred to for the solution of vexed problems, and the harmonising of those puzzling contradictions that nature seems so often to present.

OUR LIBRARY TABLE.

Syphilis of the Nervous System. By H. C. WOOD, M.D., LL.D. 135 pp. Detroit: G. S. Davis. 1889.—This book is one of a cheap series of monographs on subjects of general medical interest, and, as Dr. Wood says that of 2000 hospital cases of nervous disease under his care in Philadelphia over 1000 were syphilitic, the book will probably meet a want—at any rate in his own country. Relying mainly on his own experience, Dr. Wood gives a very clear and readable account of the distinctive characters of syphilitic affections of the brain and spinal cord. The bias natural in writing such a book leads the author occasionally, we think, into too great refinements, speaking of symptoms due to the lesion as distinctively specific—e.g., in describing "syphilitic" aphasia. He does, however, candidly state, in summing up, that the diagnosis of cerebral syphilis during life must always be a matter of inference. Those who are familiar with Dr. Gowers' recent masterly Lettsomian lectures will not find much that is fresh in this section. The author lays great stress on tolerance of large doses of iodide of potassium as presumptive evidence that a patient is syphilitic. With regard to treatment, he is in accord with most English physicians, and pins his faith to thorough treatment with mercury, accompanied or succeeded by the exhibition of increasing doses of iodide of potassium. The book is a valuable addition to the clinical descriptions of nervous diseases, but shows traces of having been hastily written, and the printer's errors are inexcusably numerous.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. IX. 1888–89.—Within a space of about 200 pages is contained a very valuable and interesting series of contributions to ophthalmic surgery. Among the papers may be mentioned a group of cases in which proptosis was the most prominent symptom, and comprising such varied conditions as suppurating hydatid of the orbit, angioma, periostitis of the orbit, arterio-venous aneurysm, and Graves' disease; contributed by various authors. Cases of Transparent Cyst of Iris and of Subconjunctival Cysticercus are recorded by Mr. Arthur H. Benson and Dr. L. Werner respectively; some interesting instances of Traumatic Keratalgia by Dr. Adolph Bronner; and two cases of Sarcoma of the Eyeball by Mr. Simeon Snell and Dr. W. C. Rockcliffe. There are, in addition, descriptions of various changes in the fundus oculi, illustrated by effective coloured plates. The first portion of the volume is occupied by the Bowman lecture on the Value of Eye Symptoms in the Localisation of Cerebral Disease, by Dr. Henry R. Swanzy.

Transactions of the American Ophthalmological Society: Twenty-fifth Annual Meeting. Published by the Society at Hartford, United States of America. New London, Conn. 1889.—This part contains several valuable communications, of which the first is that of Dr. Bull, on the Effects of Iridectomy in Ninety Cases of Simple Chronic Glaucoma, showing that if performed at all it should be done in the early stages of the disease, and that the forecast is not very

encouraging when performed at a late period, though it may still be sometimes undertaken with success. Dr. Gruening discusses the question of Iridectomy in Glaucoma, and also gives a paper on the Use of the Curette in the Treatment of Inveterate Pannus. Dr. Knapp supplies a note on Caries and Necrosis of the Walls of the Orbit, and Dr. Bull one on Tumours of the Orbit and Neighbouring Cavities. Dr. Standish contributes a good paper on Partial Tenotomies in Cases of Neurasthenia with Insufficiencies of the Ocular Muscles. Dr. Edward Jackson of Philadelphia describes the Decentering of Lenses for Prismatic Effects, and gives useful tables for decentering and of refracting angles, and Dr. Kipp gives some further observations on Malarial Keratitis.

Modern Thought and Modern Thinkers. Explanatory Sketches. By JOSEPH F. CHARLES. London: Relfe Bros. 1890.—This is a small book, but it contains a good deal that is worth reading. A veteran in philosophic study might not, indeed, find within its limited compass much, if anything, new to him. To less erudite readers it presents a clear and fairly comprehensive sketch of the leading beliefs and mental speculations which divide among them the allegiance of mankind. In the treatment of so vast a subject many details have necessarily been omitted, and any claim to originality is expressly disavowed; but the digest contained in these pages affords evidence both of wide and careful study. Special attention has been devoted to the chapters which deal with Biblical Criticism, the Pantheistic Nature Worship of India, Positivism, and the Theory of Evolution, both in its Darwinian form and in its later application, by Mr. Herbert Spencer, to the phenomena of ethics and religion. On the whole, the author is to be congratulated on his freedom from any marked bias; and if in some passages he adopts a tone bordering on enthusiasm, this appears to be rather the effect of esteem for the good which exists in almost every creed than from a tendency to favour one above another. The lightness of style, combined with variety of subject, which characterises this little work will recommend it as a pleasant companion for leisure moments.

Profitable Fruit-growing. The Worshipful Company of Fruiterers' Prize Essay. By JOHN WRIGHT, F.R.H.S. London: E. H. May, Fleet-street.—This is an essay written expressly for the benefit of "cottagers and small holders of land." It is simple in language; it is short and practical, for the competition in which it took the prize was restricted to essays of not more than twenty thousand words, and to competitors who had had at least ten years' actual experience in fruit-growing; and it is at the same time clear, being illustrated by some forty cuts. It deals with small fruit, strawberries and currants, as well as apples, pears, and plums, and with bushes as well as orchard trees. Fruit-growing is one of those subjects on which a correspondence blazes out fiercely in the daily papers every few years, and it would be hopeless to expect unanimity among its exponents; but it may fairly be said of this book that it is sensible, clear, and up to date, and that it cannot fail to be of great service to anyone who wishes to know the pleasures of managing a small garden for himself.

BURIAL REFORM.—The Earl of Dartmouth, in a letter to the hon. secretary of the Church of England Burial, Funeral, and Mourning Reform Association, advocates the use of perishable coffins on the express condition that due regard is paid to the suitability of the soil and other circumstances, and adds that, although cremation is excellent from a sanitary point of view, he sees several objections to it—e.g., the difficulty of detecting foul play from poison, the expense, and the time occupied by the process. The first of these objections appears to him insuperable. Some time ago his lordship closed the vault which had been constructed for his family, and it is now built over by an aisle added to the parish church.

New Inventions.

INSTRUMENT FOR THE RELIEF OF RETENTION OF URINE.

THE instrument represented in the illustration is intended for the relief of retention of urine from stricture. It is made of very flexible gum-elastic, about twenty-four inches in length, and is really a combination of whip bougie and catheter, with the eye placed about the middle—that is to say, twelve inches from the point. The first half or bougie portion is solid, and very gradually increases in diameter, passing over four sizes, English scale, from its olive point to the eye, thus forming a wedge to open up the stricture for the passage of the second half or catheter portion,

which is uniform in size throughout, and therefore follows the bougie easily. In such an instrument as this the weakest point is at the eye. I have provided against this by making one eye only, which is so woven that it is impossible for it to break, even when the bougie portion has been repeatedly coiled up in the bladder. A wire stilette ensures the cleanliness and strength (if required) of the catheter. The instrument will be found in practice a most valuable arrangement. It has been made for me by Messrs. Arnold and Sons, of West Smithfield, in four sizes, the smallest size having its olive point rather less than No. 1 English.

St. George's-square, Liverpool. A. E. DAVIS.

ANTISEPTIC DOUCHE APPARATUS.

OUR attention has been directed to a new form of douche apparatus made by Messrs. James Allen and Son, 21, Marylebone-lane, W. It consists of an ordinary portable douche (*vide* illustration) made of strong metal, with flat back and base, an outlet metal tap, to which is fixed rubber tubing, with a second tap of vulcanite, for the convenience of the operator, near its extremity. The novel feature consists in the attachment to the side of the main reservoir of a small glass vessel, into which some antiseptic solution is placed for the reception of the vaginal tube immediately after it has been in use. This appears to us an improvement, particularly for cases in which the risk of sepsis is imminent, and its avoidance therefore specially desirable.

LADELL'S REVOLVING READING AND REFERENCE STAND.

THIS invention is constructed to hold a number of books or manuscripts in such a manner that each one can be brought into an easy position to read without disarranging the others. It consists of a number of desks hung between projecting arms in such a way as to maintain the same angle while the projecting arms revolve. It forms a neat piece of library furniture, and will doubtless be found useful to authors, literary men engaged in compiling a work or in extensive research, and to students who have constantly to refer to several books dealing with different phases of the subject of study. The invention may be seen at 99, Dean-street, Soho, W.

THE LANCET.

LONDON: SATURDAY, MARCH 22, 1890.

IN his Presidential Address at the annual meeting of the British Medical Association in Leeds last year, Dr. HACK TUKE was very much at home when, as historiographer of the insane poor in Yorkshire, he treated of the past and present provision for these unfortunate members of the community. And, completing his *résumé* of the subject, Dr. TUKE also read a paper at the meeting on the Future Provision for the Insane Poor. The two have been republished[1] under one cover, and they form an instructive and suggestive record. Commencing with a reference to the Lunatic Hospital at York, generally known as the old York Asylum, Dr. TUKE points out how entirely disproportionate the relief afforded in the early days must have been to the need. This asylum, a charity foundation, was opened in 1777, and in the following year it contained only fifteen patients altogether. Ten years later the patients numbered about fifty; and in 1809, when the population of Yorkshire was about 950,000, they totalled only one hundred and fifty. With this scant provision for their proper care, where, asks Dr. TUKE, were the insane poor located? "Some were detained in poor-houses, such as they were, but a large proportion of dements and idiots were with their friends, probably in some outhouse, attic, or cellar, or were wandering about, the butt of village ruffians, and were sometimes dangerous epileptics. Lastly, not a few lunatics were persons whose malady was unrecognised, and who were in gaols. Undoubtedly some were executed as criminals."

The Retreat at York was projected in 1792, and it in turn gave birth to the West Riding Asylum at Wakefield, which was opened in 1818. The revolt against the barbarous treatment of the patients in the York asylum ended in its being purged of its abuses in 1814, and a decided and much needed reformation took place, both in the scale upon which provision was made for the insane poor and in the character of the treatment which they received. In this relation the honoured names of GODFREY HIGGINS, of Doncaster, and SAMUEL TUKE, of York, must not be overlooked, as it was to their combined exertions that the first county asylum in Yorkshire was mainly due. Wakefield Asylum was constructed, on what is known as the H plan, to hold 150 patients; it now holds nearly 1400, and it is only one out of a number of pauper asylums of which Yorkshire is able, no doubt with some measure of regret, to boast. In 1847 was opened the Asylum at Clifton, near York, provision being thus made for the insane poor of the North and East Ridings. In 1871 a separate asylum was provided for the East Riding at Beverley. The South Yorkshire Asylum near Sheffield was opened in 1872 with 321 patients, a population which, in January, 1889, had increased to 1616. The present Hull Borough Asylum was opened in 1883, having been originally a licensed house, afterwards, in 1842, bearing the designation of the "Hull and East Riding Refuge," a proprietary institution. Lastly, comes the West Riding Asylum at Menston, opened in 1888. The somewhat lavish expenditure of money upon the erection of this structure calls forth from Dr. TUKE the following kindly-spoken words of wisdom: "I hesitate to say a word, more especially at the present crisis in the history of our county asylums, which can be construed to imply anything like blame; I hope, however, I shall be forgiven if I venture to say, bearing in mind the wisdom of avoiding even the appearance of evil, that it would have been wise to avoid anything in the way of costly embellishment calculated to prejudice the mind of the ratepayer on entering the building. Although he may not always discriminate fairly between lavish expenditure and good durable workmanship, I should find it difficult to deny that, without the expenditure of so large a sum of money, the structure might have been as substantial, along with that just regard for cheerful appearance and even a certain amount of decoration, which I am sure none of us wish to ignore in institutions for a class of persons for whom it is most desirable to avoid cheerless and depressing surroundings."

With regard to the idiots and imbeciles, it is stated that, according to the census of 1881, there were in Yorkshire 2903 persons of this class, whether paupers or not, being at the rate of 1 in 997 of the population. The proportion in England and Wales is higher—namely, 1 in 794. We think it would be a good thing if the suggestion that Yorkshire, like Lancashire, should make provision for its own pauper idiots instead of being content with sending only a portion of them to the Royal Albert Asylum at Lancaster, which is doing such excellent work, were adopted. In January, 1889, the number of the insane in detention in Yorkshire workhouses was 1316, or 22·26 per cent. of the grand total of 5879 pauper lunatics in Yorkshire; while the number resident with their friends or elsewhere is 330, or 5·58 per cent. The majority (4265) are cared for in asylums, amounting to 72·16 per cent.; while in England and Wales the percentage is lower—namely, 69·01 per cent.

In his paper on the Future Provision for the Insane Poor, Dr. TUKE raises various questions dealing with their location and maintenance. After reviewing the work that has been done in the matter and the tentative and experimental efforts at improvement that have been made, more especially in relation to the "boarding out" of the insane, he gives the following as the conclusions at which he has arrived:—1. That the resources offered by the system of boarding-out with strangers are, as regards this county, of a very restricted character, and therefore any sanguine hopes excited by what has been effected in Scotland by this plan will not be fulfilled. The practice of paying something to the friends of pauper patients towards their maintenance to a more liberal extent than is at present the case should be encouraged. That after all has been done that can properly be done in the way of out-door relief, the great mass of pauper lunacy remains a fearful tax on asylum accommodation. 2. That workhouses under proper conditions, including separate lunatic wards and effectual supervision, should be used to the greatest possible extent for that hopeless and chronic class of cases which experience has shown may be cared for with sufficient regard to their comfort and interests. 3. That the capita-

[1] J. and A. Churchill, New Burlington-street.

tion grant should, if retained, be adjusted, so as to avoid offering a temptation to guardians to send chronic cases to asylums. 4. That after provision has been made in workhouses and in private dwellings the great majority of the insane poor, probably 65 per cent., must be provided for in county and borough asylums. 5. That either distinct blocks should be prepared as hospitals for presumably curable cases, or a separate hospital be provided for this class at some distance from the asylum.

The statistical tables appended cannot fail to prove both interesting and useful. If other counties could find a historian to do for them what Dr. HACK TUKE has here done for Yorkshire, we should have as a result a most admirable series of reports on what has been done, and what there is still left to be done, for the insane poor of this country. Meanwhile we are glad to see that the West Riding County Council have already shown their eagerness to take up in the best spirit the excellent tradition of advance in lunacy matters which has just been entrusted to them. At their meeting in January, as recorded in the *Leeds Mercury* of Jan. 9th, Alderman STANHOPE called special attention to the seeming increase of insanity in the county; and the Council resolved to make most careful inquiry into the causes of that apparent increase, as well as into the causes, both general and individual, of the occurrence of insanity itself in Yorkshire. At the same meeting the Council gave their sanction to the recommendations of a sub-committee with a view to giving effect to a scheme for the out-door treatment, in connexion with Wakefield Asylum, of persons suffering from mental diseases and nervous affections. The following is the main proposal:—"That with a view to meeting the difficulty at present existing and widely recognised in the early detection and treatment of mental disease and kindred nervous affections, and in consideration of the fact that the special knowledge requisite and the appliances necessary for treatment in this branch of medicine can only be obtained in a large proportion of cases in asylums for the insane, the committee approve of arrangements being made at the West Riding Asylum, Wakefield, to afford an opportunity of consultation, free of charge, to those suffering from such ailments, especially in their incipient stage."

We are well aware that there are various difficulties and pitfalls connected with the carrying out of this proposal. But it is decidedly a step in the right direction, and with the exercise of tact and discretion the experiment is one that ought to prove one of the most successful provisions for the insane poor of Yorkshire.

THE latest report from the Pasteur Institute shows that from August, 1889, to January, 1890, there were treated 850 cases of persons bitten by rabid animals, with one death. When we reflect that under the old methods of treatment or without any treatment the mortality in this series of cases would have been at least 120, the grandeur of M. PASTEUR'S work and the efficacy of protective inoculation become apparent. The day of controversy is apparently nearly over, opposition has become an anachronism, hostile criticism is growing silent, and it seems no longer premature to acknowledge with gratitude that our age has witnessed one of the most fundamental and far-reaching advances that have marked the history of medicine from the rise of our art until the present day. With this acknowledgment there arises a further question—viz., what prospect for the future is afforded by the new departure, and in order that this question may receive a rational answer we must clearly realise the conditions of Pasteurism, what the Pasteurian method claims to be, and what are the diseases to which it is likely ever to prove applicable.

It is almost superfluous to point out that Pasteurism takes cognisance only of communicable diseases. Its *modus operandi* is that of obtaining and isolating the specific virus of disease, attenuating that virus, and then by inoculations of this attenuated virus conveying immunity to the individual so inoculated. It is thus evident, from the nature of the case, that Pasteurism has no applicability to diseases which do not possess any specific virus, nor to those of which the specific virus is not yet known. While this consideration shows us the essential limitations of the method, we should remember that the whole course of modern investigation has tended to widen the area of communicable disease, and to place within this category many diseases which were formerly regarded as independent of a definite contagium. The case of tuberculosis at once suggests itself. From the clinical point of view no contrast could be greater than that between the course of the contagious fevers and phthisis, but the discoveries of KOCH and his numerous followers have compelled us to acknowledge an analogy between the two, and thus we have been obliged to enlarge our conceptions of communicable disease. There are several diseases of which the specific cause is not yet clearly known, but which may some day take their place within the category of communicable diseases. Pneumonia suggests itself as a possible instance, and the list might be enlarged if it were not dangerous and unscientific to indulge too freely the liberty of theory and conjecture.

Putting aside this preliminary consideration, it is obvious that two conditions are indispensable for the application of the Pasteurian method. First, the specific virus must be capable of isolation and cultivation; and, secondly, it must be capable of being weakened or attenuated by some of the means at our disposal. Our knowledge of micro-organisms, recent as it is, and imperfect as are many of its details, gives us considerable grounds for hoping that these conditions may yet be fulfilled. Once the specific virus of any disease has been discovered, there is little reason to fear that any difficulty will be encountered in devising means for its successful cultivation. In matters of this kind it is legitimate to expect that micro-organisms obey similar, although perhaps not identical, laws of nutrition and growth. The second point—viz., whether all micro-organisms will be found capable of "attenuation" without losing their specific qualities—opens up more difficult questions, regarding which dogmatism would be unbecoming. We cannot feel sure that this capability of attenuation is a universal law of the micro-organisms of specific disease, but there is nothing to exclude the hope that such may yet prove to be characteristic of them as a class. Apparently all such micro-organisms are modifiable in some way by alterations in media and

cultures, and we may cherish a sober expectation that human ingenuity will be equal to the task of devising such alterations in these particulars as will secure the needful degree of attenuation.

The Pasteurian method has to face another and apparently more formidable difficulty. It is evident that the early steps of its application to any new disease are of necessity tentative and experimental, and it is difficult to see how the requisite observations can be carried on with regard to diseases peculiar to man and not affecting the lower animals. Many, though not all, of our specific fevers are peculiar to man, and it is evident that even when the specific virus of each has been discovered, as we feel sure will be accomplished sooner or later, we shall find ourselves crippled for the want of material for carrying on the observations necessary for discovering the laws of such virus, and for obtaining its attenuation. But the list of diseases affecting the lower animals and man in common is a tolerably long one, and the work of protective inoculation is not likely to languish for lack of material.

New and striking advances in medicine pass through three stages. At first they are opposed as chimerical and delusive. Then they are accepted with inconsiderate joy, and their area of usefulness is apt to be exaggerated. There comes, finally, a third stage, when their real usefulness is correctly gauged, and when we gladly gather their precious fruit without expecting from them that which they never held out any well-founded hope of being able to afford. It seems likely that Pasteurism will pass through these three stages. It has had its time of obloquy and opposition. This stage it has successfully surmounted, and may be said to have entered upon the second stage when the most sanguine hopes are freely entertained regarding what seems so fruitful and inspiring a method. These hopes may prove in some respects unduly sanguine, but it seems hardly possible to doubt that M. PASTEUR'S work will possess a permanent and incalculable value, and that his name will remain one of the greatest glories of the nineteenth century.

IT is very remarkable to find how short a way the nations have really gone which pride themselves on being the most advanced in liberality. France boasts of its motto, "Liberty, Equality, and Fraternity," but when it comes to be a question of admitting the liberty of a foreign medical man to practise in the Republic, he is not regarded as either free, equal, or fraternal in his rights. M. SPULLER, according to a *Times'* telegram, in his recent conference with the Committee on Foreign Medical Men, remarked that—

"Foreign degrees were of such different value that they could not be accepted in France. Foreign practitioners must therefore be tested, but they might be partially exempted from French training, and there was no treaty impairing full liberty of regulation on this point. Foreign visitors at watering places ought, however, to have the liberty of consulting foreign doctors."

It is not clear from this statement whether a foreign doctor is to be entitled to attend his countrymen only or foreigners generally, but this will doubtless be specified in the Bill, which is not likely to pass just yet.

Such is the attainment in international generosity of our near and respected neighbour. We venture to say that when analysed and examined the achievement is not worthy of France. Let us see what it amounts to. The chief point is this, that because foreign diplomas are of unequal value none must be recognised and all suspected, and all the holders subjected to French tests. One concession M. SPULLER is generous enough to make: "Foreign visitors ought to be allowed the liberty of consulting foreign doctors." We must be thankful for small mercies, and it is something, from our own national standpoint, that the thousands of English-speaking people driven to France by climatic considerations for a great part of the year are to be allowed the liberty to consult one of their own tongue, and who may be considered better acquainted with English medicines and constitutions. But we want to reason with M. SPULLER in the hope of carrying him further. We may admit the inequality of foreign diplomas; but surely it is obvious that some of them are very respectable guarantees of professional competency, and it is possible for so acute a nation as the French to ascertain whether, in the main, the chief diplomas of a nation are or are not such, or at any rate to ascertain whether there is, in any given country, a body of sufficient authority to superintend medical education and to guarantee its sufficiency. We speak with some right in this matter. For England, with all her insular prejudices, has taken the lead in liberal legislation, at least. We have now a law which practically enables the recognition of all reputable foreign and colonial degrees, and which throws on our Medical Council the duty of ascertaining that any given foreign or colonial diploma is worthy of recognition. This law has not been much used, it is true, so far. But that is not the fault of either the English Legislature or of the General Medical Council of England. It is in operation, and under it, doubtless, the diplomas of France would be liberally treated and recognised. Even apart from our legislation, that would place the possessor of any respectable foreign diploma on practically the same legal footing as the possessor of our own British qualifications. Our custom is to allow full personal liberty to foreign practitioners to practise without molestation or inquiry. We commend this attitude to our French brethren. Surely if the common people are to cultivate generous international sentiments the members of the liberal professions should lead the way and set the example. And of all nations from whom such an example may be expected France is among the first. There need be no fear of a wholesale invasion and competition. It is not surprising that foreign groups of people in France should prefer practitioners of their own nationality. And it is equally natural that French people should prefer practitioners of their own blood. And so it will happen that with the most liberal legislation facts will remain much as at present. But it is unworthy of the leading Ministers of the Republic to talk of submitting the well-attested members of the profession of other nations to fresh ordeals of education and examination.

IN a recent report from the Loomis Laboratory two American observers, Dr. GILMAN THOMPSON and Dr. SANGER BROWN, give an account of numerous experiments which they have performed on dogs, cats, and monkeys.

The experiments were undertaken as a continuation of those which were performed in this country by Professor SCHÄFER and Dr. SANGER BROWN. They arrived at the conclusions that in dogs and cats the physical decussation of fibres at the optic commissure was complete, so that destruction of the cortical centre produced complete blindness in the opposite eye only. In these animals the centre occupied the posterior part of the occipital lobe. The blindness was not permanent unless the incisions were made deeply, or unless at least two convolutions were removed. In monkeys, however, as in man, only half the fibres decussated. They found that hemianopia was produced by removal of the posterior part of the occipital lobes, and that it was temporary unless the incision was sufficiently deep to injure a large part of the white matter, or unless more than one occipital convolution were removed. Removal of the angular gyrus in monkeys was found by these observers to have no effect whatever on vision. They found, however, that in experiments where the angular gyrus only was removed there was temporary hemianæsthesia developed on the other side, lasting about six weeks. This symptom was also observed in another experiment where there had been an extensive lesion of the occipital lobe, which partly involved the angular gyrus.

The conclusions at which these investigators arrived with regard to the position and large superficial extent of the half-vision centre are supported by numerous recent pathological observations in the human subject. Hemianopia has been shown to be produced by lesions in several parts of the occipital lobe. Thus DÉJÉRINE and SOLLIER have recently reported a case of permanent hemianopia by softening of the first and second occipital, and the first and second occipito-temporal convolutions, entirely posterior to the cuneus. SEGUIN and others, again, have reported cases in which the cuneus only was involved, and some have been inclined to confine the centre to that situation; but the variety of sites in which small lesions have been found causing hemianopia indicates that a more extensive surface of the cortex is involved in the process. Clinical observation also supports the view that small lesions of the area produce only temporary hemianopia. At a meeting of the Ophthalmological Society last year, Dr. JAMES ANDERSON and Mr. DOYNE showed cases in which recovery had taken place from homonymous hemianopia, and in each case the necropsy showed a lesion situated in the occipital lobe, but of small size. Observations on the human subject do not entirely support the views of Dr. GILMAN THOMPSON and Dr. SANGER BROWN that the angular gyrus in man is probably not connected with visual processes. It does, however, differ in many ways from the occipital centre, as lesions limited to it do not as a rule produce hemianopia, although temporary amblyopia affecting the whole of the field of the opposite eye has been several times observed. Still more frequently has the curious symptom known as word blindness or alexia been observed, in which, while a person can distinguish objects readily, and may even be able to identify letters, he is quite unable to comprehend the meaning of written language. It is believed by Dr. GOWERS that the angular gyrus is the position of a centre "higher" than the occipital centre in which the visual sensations excited in the latter give rise to ideas. In a recent number of the *Corresp. für Schweiz. Aertze* a case is recorded in which permanent left hemianopia was accompanied by complete word blindness of the right halves of the fields, in which ordinary vision was preserved and was as acute as before; and, at the necropsy some time later, an apoplectic cyst was found, involving a large part of the grey and white matter of the occipital lobe, and in addition around it was an area of softening which had affected the angular gyrus. Further observations are required, and it is most desirable that all cases bearing on these points should be carefully and accurately recorded, as every fact which increases our knowledge of the processes which subserve vision is a step towards the understanding of the other special senses, with regard to which our knowledge is in an even more incomplete stage than is our acquaintance with the phenomena of vision.

Annotations.

"Ne quid nimis."

INFLUENZA IN ST. PANCRAS.

DR. JOHN F. J. SYKES has issued a report on the influenza epidemic in St. Pancras. He begins by referring to previous epidemics, and in connexion with the view that the disease reached this country *viâ* Northern Russia he recalls the fact that catarrhs are believed to be especially prevalent in the subtemperate, subarctic, and arctic zones. But it is more than doubtful whether the catarrhs here referred to have any closer relation to the so-called Russian influenza than have our own ordinary "influenza" colds; indeed, Dr. Sykes himself points out that in the foreign epidemic "nasal catarrh is conspicuous only by its absence." As to the association of the disease with dengue, the points in which the two diseases differ are set out, but it is stated that dengue was epidemic in Smyrna and Constantinople at the same time that the influenza made its appearance, and the possibility is hinted at of a hybrid disease having been produced by the concurrent prevalence and overlapping of the southern dengue with northern influenza. Referring to the occurrence of the disease amongst horses, he found no great difficulty in learning that 927 horses had been affected with "influenza" in St. Pancras between the middle of September and the end of January last; but he could find no evidence of the communicability of the horse disease to man; indeed, although there seem to have been plenty of people living over stables where horses were suffering, neither these people nor the stablemen appear to have contracted the disease, whereas stablemen engaged in stables containing healthy horses contracted the prevailing malady. In connexion with the inquiry which is being made by the Local Government Board, Dr. Sykes has obtained information from seventy-three medical practitioners as to about 8000 cases. From this source it would appear that the disease commenced in the third week of October, and that there is a great divergence of opinion as to whether the infection is conveyed aerially and apart from cases in the human subject, or is contracted from person to person. But it is clear that a sequence of attacks in the individual members of families, such as usually follows in an infectious fever, was common. The main incidence of the disease is stated to have been upon male adults, children having throughout remained remarkably free. This, again, tends to support the view as to infection from previous cases, for

our London male adults have much more opportunity, in their daily work, of meeting with persons who are suffering, or have recently suffered, from the disease than women, whose movements are much more restricted to the vicinity of their homes. It should not escape notice, in dealing with this point, that the number of medical practitioners who have been attacked with influenza has been very large, and that, in very many instances, have been the first to suffer in their own households.

EXPERIMENTS OF THE HYDERABAD COMMISSION ON TIGHT-LACING AS A CAUSE OF DEATH IN CHLOROFORM ANÆSTHESIA.

IT is rather extraordinary to observe what an outcry has lately been raised by a number of our lay contemporaries against the experiments upon the effect of tight-lacing as a cause of death during the administration of anæsthetics which were made by the Chloroform Commission in Hyderabad, and mentioned in an address given at the Medical Society by Dr. Lauder Brunton. In some papers these experiments have been quoted as examples of the infliction of pain upon sensitive animals to an extent that is "horrifying," and have been stigmatised as "wanton cruelty." Some of the papers appear to have thought also that Dr. Lauder Brunton's observation that the experiments were made on female monkeys as being more like women than dogs referred to their mental and not to their physical characters, whereas it is obvious that the observation had reference only to the shape of the body as influencing the respiration, and in shape the body of the monkey more nearly resembles the human being than does that of the dog. Female monkeys were chosen in preference to males on account of the possibility that a difference might exist between the amount of thoracic and abdominal breathing in male and female monkeys similar to that which exists in women as compared with men. It is hard to see how these experiments can be looked upon as cruel, inasmuch as there was absolutely no pain inflicted, the experiments simply consisting in applying to monkeys *under chloroform* an amount of compression of the chest and abdomen which is self-inflicted daily by many thousands of women in Great Britain without anæsthetics. The objection has also been raised that the experiments were needless, as the effects of tight-lacing had been demonstrated over and over again; but it seems to have been forgotten that the experiments of the Commission were not made in regard to the effect of tight-lacing in general, but to the effect of tight-lacing as a factor in producing death during the administration of chloroform. Theoretically, no doubt, it ought to be easy to predict that tight-lacing would aid in the production of death during the administration of chloroform; but it is very easy to say, after the experiments of the Commission have shown this to be the case, that the results they obtained were well known before, and that no good has been gained by their experiments upon the subject. But practically the dangers of tight-lacing have not been properly appreciated, inasmuch as an unfortunate death occurred in Edinburgh from nitrous oxide administered for the extraction of a tooth, at the beginning of October last, shortly before the Commission began its labours. In this case there seemed to be reason to believe that tight-lacing had contributed in no small measure to the unfortunate result, and it was, indeed, this lamentable accident which led the Hyderabad Commission to make their experiments. These experiments will have served their purpose if they lead to the general observance of the rule which the Commission lays down in the third section of its conclusions—viz.: "To ensure absolute freedom of respiration, tight clothing of every kind, either on the neck, chest, or abdomen, is to be strictly avoided; and no assistants or bystanders should be allowed to exert pressure on any part of the patient's thorax or abdomen, even though the patient should be struggling violently. If struggling does occur it is always possible to hold the patient down by pressure on the shoulders, pelvis, or legs without doing anything which can by any possibility interfere with the free movements of respiration." The outcry, foolish though it may have been, against the experiments just mentioned may not be altogether without its use if it leads to a general recognition of the dangers of tight-lacing or tight clothing generally in anyone who is about to take an anæsthetic.

THREE CASES OF MISTAKEN IDENTITY.

ACCOUNTS have recently been published of three cases of mistaken identity. In two of these the error had reference to the bodies of dead persons, whilst in the third the mistake occurred in the identifying of a living subject. On Christmas Day a woman named Catherine Reed, who had been drinking, did not return home. On the following morning the body of a woman was discovered by the side of the river Mersey. This was identified by Catherine Reed's son as that of his mother. An inquest was held, and in due course the funeral took place. The money for which Reed's life was insured was drawn by her son. On March 4th Catherine Reed returned home, and, as if to add further proof of her continued existence, claimed her share of the insurance money. During the interval that elapsed between her supposed death and her restoration to her family she was twice admitted to the Liverpool Workhouse Infirmary. From there she wrote to her son, but the latter, thinking he was being hoaxed, took no notice of the communication. The second case happened at Paris in February. A Catholic named Dorlin was admitted into the Rothschild Hospital, where he died on Feb. 23rd. On the next day a Hebrew named Brunswick expired in the same institution. By a mistake of the hospital attendant the bodies got mixed. Although Madame Dorlin had some doubts as to the body shown her being that of her late husband, these were dispelled by the assurance of her relatives that post-mortem changes sufficiently explained the discrepancy. On Feb. 26th a requiem mass was celebrated, and the body of the Jew interred with Catholic ritual in Isley Cemetery. On the following day Brunswick's son found that the corpse shown him was not that of his father, and the mistaken identity was made clear. Some difficulties occurred with regard to the interment of the actual body of Dorlin both as regards expense and the procuring of clerical aid to sepulture. These were at last overcome, but the body of Brunswick remained in a Catholic grave until an order for exhumation could be obtained. On March 3rd a curious case was brought to light at Hampton Petty Sessions. A woman named Watts was charged on her own confession with obtaining wearing apparel from a Mrs. Priestley under false pretences. A week previously, a woman named Lawrence was committed for trial at the Middlesex Sessions for the same offence. Mrs. Priestley and another woman then swore to the identity of the woman Lawrence, who asserted her innocence. Mrs. Priestley now admitted she might have been in error, and circumstantial evidence was adduced to show that it was Watts who had really obtained the goods. Lawrence was at once let out on bail, but an order from the Home Secretary was necessary before she could be released from the criminal indictment. In none of the foregoing cases have we any details as to general or particular resemblances which led to the mistaken identity. As regards dead bodies, it is evident that where there is simi-

larity of age, height, build, and features, it may be difficult, in the absence of special marks, to identify such where cadaveric decomposition has advanced. In the two cases detailed above there is no evidence that such had happened, and probably they may be taken as instances of mistaken identity from careless inspection. The question of probability is given undue weight. A person is reported to have died, and the body presented is expected to be that of the deceased in question, and thus, through negligence, the identity is accepted without sufficient proof. The case of the woman Lawrence is one of great forensic importance, because, without the, so to speak, accidental confession of Watts, it might have ended in the conviction of an innocent person, especially as the incriminatory evidence was direct, and not circumstantial.

FATAL ELECTRIC SHOCK.

DRS. MACDONALD, ROCKWELL, and LAUDY, a committee appointed by the authorities of the New York State Prison, have been experimenting at Auburn Prison on the strengths of currents required to cause death, in large animals, by the electric discharge. A horse weighing 1000 pounds was subjected to the current. One electrode was placed on the forehead of the animal, the other on the outer aspect of the hind leg, and then a current—electro-motor—of 1200 volts was passed. The animal fell dead instantly. In another similar experiment on a calf, Dr. Fell of Buffalo set up artificial respiration, but failed to restore life after an effort lasting half an hour. In a third experiment, carried out at Clinton Prison, a young bull weighing 600 pounds was killed by a current of 900 volts. Drs. Macdonald and Rockwell also found that a current of 1000 volts was sufficient to kill a horse, whilst one of 500 volts was sufficient for causing death in dogs and calves weighing up to 75 pounds. These are facts, but they do not add anything to our knowledge, nor to the influence of our knowledge, on the moot point whether electricity should be substituted for other forms of capital punishment. No one doubts that in the hands of men of science a sufficient electric shock can be administered to a human being to cause immediate death. Ever since the publication of Benjamin Franklin's famous letter to Messrs. Dubourg and D'Alibard in 1773, in which the manner of killing a turkey by an electrical discharge is described, it has been admitted that the thing can be done in a scientific manner. We do not dispute the point, but our views are not changed by these late experiments. We contend that men of science ought not to be called upon to lend their skilled services for the performance of the duties of the common executioner. Science properly administered is for the saving of life, not for the taking of it. The next request of the authorities, if a man of science should undertake to kill a criminal by electricity, would be that some other man of science should be ready to kill a criminal by the administration of chloroform. The idea is preposterous that cultivated men should be expected to perform any such services. Take away, however, the skilled hand of science, and where is the satisfactory proof that the execution will be perfect? Again, degrade science by making it the living instrument of fatal punishment, by instantaneous and painless death, and where is the deterrent, fear? As it is, the gallows has so little deterrent fear about it, that men defy it right and left. Make, then, the mode of death easier, and increase the defiance! We repeat it: men of science cannot be more nobly employed than when they are applying the resources of science to human welfare and human happiness; but when they begin to dabble with death, with modes of killing their own species, they are stooping to the commonest of the common faculties of men, and in the case of medical science and art are signally debasing both.

HYDROPHOBIA.

IN the data collected by Dr. Lucas Benham our readers have had before them a fair amount of the evidence capable of being adduced in proof that hydrophobia may be successfully treated. This evidence does not, however, afford much satisfaction, inasmuch as it will have been noticed that the cases on which most reliance has been placed, those, namely, where bleeding and salivation have been freely employed, are derived from the records of the early part of this century, when apparently less care was exercised to establish the fact of the rabidity of the animal inflicting the bite. Indeed, in many of the narratives supplied by Dr. Benham there is a candid confession made respecting the doubtfully rabid character of the case. Moreover, in others the symptoms, so far as narrated, seem to be far more exaggerated than in true hydrophobia, and such indeed as may be expected in an ideational affection. Dr. Benham's candour and impartiality are to be commended, but, in spite of all he says, we are bound to remain sceptical, without, however, declining a trial of any remedies, which, on theoretical and experimental grounds, may be supposed to allay the irritation of the medulla that characterises the disease.

FOREIGN BODIES IN THE CRANIUM.

THAT foreign bodies may remain for an almost indefinite time within the head—in some instances without giving rise to any untoward results—is recognised by the profession, but that they can do so as a rule is rightly denied. The discovery in a recent case of the presence of a knife blade in the head of a patient, which did not, however, penetrate the brain substance, and that of a penholder in the head of another patient, both of whom died of causes quite unconnected with the presence of these foreign bodies, which had been lodged for an unknown period, may have given the impression that they should be let alone—that they are harmless. Wharton some years ago collected 316 cases which had been published of foreign bodies penetrating the skull to a sufficient depth to make it probable that the brain had received injury. Of these the majority were bullets or slugs which had lodged as the result of gunshot injury, but a small number were examples of puncture—twelve by the blade of a knife; of these a few recovered from the injury. Zacutus reports that a man carried half a knife in his brain for eight years without inconvenience. Turnipseed had a negro under his care for epilepsy, which was cured by the removal of the blade of a knife, an inch and a half long, from the anterior part of the left lobe of the brain, where it had remained for three years. Martin gives a case in which a knife blade was successfully removed after six months; and another is recorded where a blade had remained only seven days in the brain. In 1838 we placed on record in our columns the history given by Selwin of a child aged four who had fallen on an open knife. The blade penetrated three inches and a half, dividing the optic nerve and levator palpebræ muscle. The attempt at removal was prolonged and troublesome, being attended by hæmorrhage and the escape of some fragments of brain. Recovery was complete, with the exception of blindness of the eye on the damaged side. Gintrac records a case where recovery followed the removal of a knife blade three inches and a half long from the right orbit. It was difficult to extract. No symptom excepting swelling of the upper lid had developed afterwards. The great importance of carefully searching for foreign bodies in scalp wounds is also shown in cases under the care of Dupuytren and Nancrede. To the former, a patient presented himself eight years after the original injury with local signs of inflammation and cerebral abscess; and that surgeon removed part of the blade of a knife,

evacuating pus with good result, by incision of the brain beneath, some days later. The latter was called upon to treat a youth who had been injured two months previously. Removal of a knife blade which was found in the centre of an obstinate ulcer at the point struck was followed by inflammatory symptoms and later by cerebral abscess. The contents of this abscess were evacuated, but the patient afterwards died from hernia cerebri. As examples of recovery from larger instruments which have penetrated the head, we may refer to the man seen by John Dominic Sala, who had perfectly recovered from a sword wound, although the point of the sword remained in his brain for the rest of his life; and the man treated by Fournet, who drove a cabinet-maker's chisel into the top of his head as far as it would go. This was withdrawn with difficulty. It was probable that in this instance brain tissue was uninjured, for in an experiment on the head of a dead body the chisel passed to its full extent in a similar direction in the middle line without wounding the brain on either side, though it divided the longitudinal sinus. These cases of recovery are the exception; all scalp wounds should be most carefully examined for foreign bodies, and the trephine applied if a knife blade or other substance be found, the fullest precautions as regards antiseptics being employed. The rule in these punctured fractures is to have recourse at once to operative treatment—to apply the trephine. Although from the appearance of the wound of the scalp it may not be considered that the injury is severe, the danger to the internal table is sure to be more serious, and the after consequences of the gravest nature. The most usual result of the lodgment of foreign bodies in the brain is death sooner or later from inflammation and softening of the brain, cerebral abscess, or epilepsy. Penetrating wounds of the orbit are especially fatal. Wharton found that in seventeen out of eighteen cases a fatal result ensued.

THE DEATH-RATE OF NEWCASTLE-UPON TYNE.

A MEMORIAL having been addressed to the Council of the City of Newcastle-upon-Tyne by certain clergymen, as to the increased death-rate which had taken place during the latter part of 1889, Mr. Henry Armstrong, the medical officer of health, was instructed to report on the subject. His first criticism is a vital one, in so far as it affects the general tenour of the memorial, for it is to the effect that it is impossible to form a true judgment of the mortality of the city by selecting so short a period as seven weeks. As regards zymotic diseases, he shows that, apart from any question of increased population, these have fallen from 1763 in 1887 to 847 in 1889. He goes on to show the action taken in Newcastle by way of improving the housing of the poorer classes, as by the closure of houses unfit for human habitation, the control and regulation of tenement houses, and other measures. But he does not profess that the inspection now practicable deals effectually with overcrowding, for not only is the staff available insufficient to deal properly with the tenement houses, but there is under the existing by-laws no power of entry after 9 P.M., whereas it is well known that the worst overcrowding occurs after the closing of the public houses at a later hour. Mr. Armstrong also takes the opportunity afforded by the presentation of this memorial to recur to matters which he has dealt with on former occasions. Thus he refers to the need for a better distribution of the water-supply, and he emphasises the fact that unless it is laid on to each flat, the labour of fetching it prohibits its use for many purposes of cleanliness that would tend to the promotion of health. He also directs the attention of the Town Council, in connexion with the recent circular letter of the President of the Local Government Board, to the question of improving the dwellings of the poor; but he feels bound to add that the almost entire absence of typhus during the last two years must be regarded as having some bearing on the fact that the serious overcrowding which formerly existed has been largely removed. Amongst other points named by the memorialists was the mortality amongst children. Statistically the contention was open to objection, because the meteorological and other conditions which had prevailed during the seven weeks referred to prevented any annual mean being calculated from the limited data quoted. But Mr. Armstrong is convinced that the compulsory attendance at school of weakly, scrofulous, ill-fed, poorly clothed, or badly shod children has doubtless contributed very considerably to such increased death-rate; and, referring especially to the cold, damp weather which prevailed during the latter part of last year, he expresses the conviction that children, under the conditions of health and clothing described by him, who have had to make journeys on foot in bad weather, and afterwards to sit for a considerable time in damp clothing or damp shoes, must necessarily have suffered in consequence.

OVARIOTOMY IN A PATIENT WITH TRANSPOSITION OF VISCERA.

ON Friday last Mr. Treves performed at the London Hospital an ovariotomy upon a young woman in whom the following conditions were discovered. The tumour was cystic and practically filled the abdomen. The diaphragm was pressed upwards. The heart was noticed to be beating upon the right side of the chest. The presence of the tumour prevented any examination of the abdominal viscera. The abdomen was opened by Mr. Treves and the tumour removed. It was then discovered that all the abdominal viscera were transposed. The liver was upon the left side, the spleen upon the right; the left kidney was lower than the right; the cæcum was in the left iliac fossa, the sigmoid flexure in the right; the aorta ran along the right side of the vertebral column. The stomach was transposed, the pylorus being placed to the left. The tumour had grown from the right ovary. The patient (who was sent to the hospital by Mr. Tandy of Haverhill) is doing well.

VESTRYMEN AND SANITARY WORK.

THE charges against members of the St. Pancras Vestry made by Mr. Henry Lazarus, a member of that vestry, in a case recently heard by Mr. Cooke at the Marylebone Police-court, are very serious, but unfortunately by no means novel in kind. Mr. Lazarus described some filthy and overcrowded tenements in the St. Pancras district, and justified himself for proceeding against the owners by asserting that it was impossible to get the vestry to take action in such cases, even in reply to the strongest recommendations of the sanitary committee. Mr. Lazarus, in his cross-examination, is reported to have expressed himself in the following manner (we quote from the *Daily News*): "How long have you been a member of the St. Pancras Vestry? Mr. Lazarus: About nine months. Mr. Palmer: Have you complained to the vestry in regard to this property? Mr. Lazarus: No, not this particular property. Mr. Palmer: Who asked you to go to visit these houses? Mr. Lazarus: No one. Mr. Palmer: Then why did you go? Mr. Lazarus: Because God tells me to protect the weak, and I am trying to do it. In reply to Mr. Cooke, Mr. Lazarus repeated that the vestry was choked with house farmers. Mr. Cooke: You mean the vestry will not do its duty. Mr. Lazarus: That is it, and I am taking this case up in consequence of that. The sanitary committee make recommendations to the vestry, and that body fails to carry them out." The evidence of Mr. Lazarus as to the condition of the houses was confirmed by that of Dr. Louis Parkes, the

hon. medical officer to the Mansion House Council. Mr. Cooke ordered the necessary repairs to be done at once, and allowed the complainant two guineas costs. We have no means of ascertaining whether the strong allegations of Mr. Lazarus in regard to the St. Pancras Vestry are well founded; but experience, gained in almost every part of the country, leads us to fear that they may be. It is difficult to see how the evil can be entirely cured except by conferring more stringent powers and duties upon the Local Government Board. But each district might easily protect its poorer inhabitants by refusing to elect to office anyone to whom the slightest suspicion attached. It is the apathy of the public more than the defects of the system which leads to such scandals as that now alleged.

THE INFLUENCE OF GASTRIC JUICE ON PATHOGENIC GERMS.

DRS. KURLOW and WAGNER, in a paper on the Influence of Gastric Juice on Pathogenic Germs, which they publish in the *Vrach*, describe some interesting experiments which they have made on this subject, from which they are led to the conclusion that constant or specific microbes do not exist in the stomach, and those which enter it, together with sputum, food, or other ingesta, are only accidental and temporary residents, and cannot live in the normally acid contents of the stomach. Gastric juice is, according to the authors' experiments, an exceedingly strong germicidal agent, and when living bacilli get into the intestinal canal it is due to various conditions entirely independent of the gastric juice. When the latter is normal and in full activity, only the most prolific microbes, such as tubercle bacilli, the bacilli of anthrax, and perhaps the staphylococci, escape its destructive action; all others are destroyed in less than half an hour. Similar influences exist in the intestines, as proved by inoculations with the cholera bacilli. On the latter subject the authors intend making further experiments.

"VISUALISED IMAGES PRODUCED BY MUSIC."

AN interesting letter appears in *Nature* of March 6th bearing this title, and it would be doubly interesting if it could be shown to be not of exceptional occurrence. The subject is a lady who is in perfect health, and is stated by the friend who makes the communication to be very intelligent, an accomplished musician, and not at all in this or any sense the victim of a disordered imagination. She has observed that the sound of an oboe brings before her a white pyramid or obelisk running into a sharp point, the point becoming more acute if the note is acute, blunter if it is grave. The obelisk appears to be sharply defined and solid if the note is loud, and vague and vaporous if it is faint. All the notes of the violoncello, the high notes of the bassoon, trumpet, and trombone, and the low notes of the clarionet and viola make her see a flat undulating ribbon of strong white fibres. The tone of the horn brings before her a succession of white circles of regularly gradated size, overlapping each other. These circles and the ribbon float past her horizontally, but the point of the obelisk seems to come at her. In an orchestra, when the violins strike up after the wind instruments have been prominent for a time, she often, but not always, sees a shower of bright white dust or sand, very crisp and glittering. The recurrence of this impression is, she thinks, becoming more frequent, but it is not invariable, like the others. The subject of this curious association of senses has heard a great deal of orchestral music all her life, but she has only noticed these effects for four or five years. They have gained gradually in frequency and clearness, and the first three are now invariable. If she knows the scoring of a piece well, the various effects slightly precede the instrument they belong to, only the objects are vague and faint till the sound begins. Sometimes, if an oboe passage has an intense and yearning character, the white point approaches so closely and moves so rapidly that she thinks it must wound her. She expressly remarks that in the above statements she is not trying to describe a mental state by symbols, but that she actually sees the point, the fibres, and the circles. Generally they seem to float half-way between her and the orchestra. If only one class of instruments is used, the effect does not extend beyond the opening bars, so that in a string quartette, for example, she only sees the white sand for a moment at the beginning. If, however, the wind and stringed instruments are combined, she sees the various effects again and again in one piece.

THE DRAINAGE OF LONDON.

AT the meeting of the London County Council on March 18th the Main Drainage Committee reported that they had received tenders for carrying the sludge to sea for one year, commencing on April 1st, 1890; but, upon examination of these tenders, it had not appeared to the committee that they could recommend the acceptance of any one of them, the payment demanded per ton being much in excess of the cost at which the work of discharging the sewage sludge at sea was now carried on. In these circumstances the committee were considering the possibility of making arrangements for the more continuous working of the sludge ships, and also for the hire of auxiliary vessels for carrying away and discharging at sea any amount of sludge beyond that which the two vessels, the *Bazalgette* and the *Barking*, could remove.

THYROID GRAFTING.

IT is only a few weeks since Professor Horsley, encouraged by the experiments of von Eiselsberg, suggested that the progress of myxœdema might be arrested by transplantation (into the peritoneal cavity) of a portion of the thyroid gland of the sheep. Von Eiselsberg had shown that the transplanted thyroid was capable of becoming vascularised in its new situation, and of continuing its function, since out of nine animals from which he extirpated one lobe, having previously transplanted the other into the mesentery or subperitoneal tissue, the only one which did not exhibit symptoms characteristic of total ablation was that animal in which the transplanted lobe had neither necrosed nor degenerated. The proposal of Professor Horsley—which was certainly remarkable—has actually been put in practice by M. Lannelongue, who reported his case at a meeting of the Paris Biological Society on the 7th inst. The subject was a myxœdematous cretin, fourteen years of age. About two-thirds of the left lobe of the thyroid was removed from a young adult sheep, and transplanted into the subcutaneous tissue of the child's chest, below the right breast, it being found impossible to insert it in the neck owing to the presence of large "myxœdematous tumours" in that region. The capsule of the transplanted organ was removed before embedding it at a depth of three centimetres from the skin. The operation was aseptic, and the wound united without fever or suppuration. Whether any appreciable result will follow remains to be seen, but M. Lannelongue believes that the grafting has succeeded. M. Chauveau thought it probable that the engrafted thyroid would be absorbed, and stated that it was an easy matter to engraft a sheep's testicle in subcutaneous tissue, but that the organ was gradually destroyed. Superficial capillary adhesions, he said, do not suffice to maintain the vitality of the transplanted organ; large vessels are needed for this purpose. M. Dastre also pointed out that the observation of P. Bert (1863) showed that engrafted tissues are generally

absorbed, although the case of a vascular gland like the thyroid might be different. M. Lannelongue urged that animals in whom the thyroid had been transplanted into the abdomen escaped the usual consequences—cachexia strumipriva—of ablation of the gland. M. Pouchet pointed to the difficulty of obtaining the thyroid of the same species of animal, a point, it may be remembered, raised by Professor Horsley, who, however, has shown that the thyroid of the sheep most closely resembles that of man.

HORSE-SHOEING.

AT the Royal United Service Institution a paper was read last week by Dr. Fleming, the principal veterinary surgeon of the army, on "The Shoeing of Horses for Military Purposes." After some remarks on the practical importance of shoeing and a brief historical sketch of it, Dr. Fleming adverted to the erroneous principles on which, until within the last few years, it was carried out, and the unmerciful manner in which the horses feet were treated. "Mistaken ideas as to the functions of the foot, and especially of its protection, the hoof, led to the latter being considered as something inimical to the animal's welfare. It was therefore barbarously mutilated, and only too often is so yet outside our army; while the shoe attached to it was clumsy and damaging in the extreme." He then proceeded to detail the improvements which had been introduced into the army by the adoption of machine-made shoes, cold shoeing, the instruction of a number of men in the ranks to put on shoes, the training of the farriers to assist in the horse infirmaries, and in fact to perform with regard to horses the duties discharged by men of the Army Hospital Corps in the military hospitals. This system has been in operation for the last three or four years, and has been attended with the most satisfactory results. It has permitted of a great reduction in the amount of the transport formerly necessary for the work of the farriers on field service; the shoes have been found to be better shaped and finished than the old hand-made ones, the labour of shoeing has been greatly reduced, and the time required much shortened; while the cruelty to the horse involved in the cutting of the hoof to fit the shoe, instead of making the shoe to fit the hoof, and the application of the hot iron to supplement the cutting in getting a fit, has been abolished. The advantages of the new pattern machine-made shoe are stated to be: (1) Solidity of attachment to the hoof; (2) security of foothold; (3) soundness of the foot. The system now in operation has also the advantage of providing a sufficient number of qualified shoers on service, and of trained veterinary hospital assistants to the officers in charge of the sick horses. These are two classes of which the want, or at best the very inadequate supply, has hitherto seriously affected the efficiency of troops in the field. Dr. Fleming stated that this system has been introduced not merely without increased expense, but with such a saving as will enable a more adequate establishment of hospital assistants to be maintained. He also brought to notice the advantages of the mode of winter shoeing with "steel pegs of a pyramidal shape fitting into square holes in the shoes," in lieu of the old and injurious and not very efficient method of "roughing." "It is so inexpensive that for a few pence a horse can travel securely at any pace on ice for a month, and it is so simple and readily applied that the horses of a whole army corps can be prepared for marching on the most slippery roads within half an hour." He stated that so far as it had been tried in the army it had been attended with success, and that this had also been the result in the Swiss army, in which the system had been adopted. He thinks it "a matter for regret in towns which have slippery roads all the year advantage cannot be taken of a simple plan like this to economise horses' powers and spare them distress, fear, and injury. It is very painful to pass along some of our streets and witness the amount of horse torture, and loss of power that occurs during certain states of weather, and it certainly does not say much for the common sense or humanity of those who shoe the horses or construct the roadways." In the discussion which followed, several officers of the Veterinary Department bore testimony to the satisfactory results which had been obtained by cold shoeing on service, and also at the autumn manœuvres. The chairman, General Sir Beauchamp Walker, K.C.B., endorsed all that Dr. Fleming had said, and called attention to another improvement which had been introduced—the reduction in the number of nails used in shoeing, four or five being now found sufficient. He regretted that no cavalry officer had offered any opinion on the subjects treated in Dr. Fleming's valuable and profitable lecture. The absence of officers of that branch of the service when a subject of so much importance to it was to be discussed must, we fear, be taken as indicating a very small amount of zeal on their part or of interest in the practical welfare of the cavalry.

PORRO'S OPERATION.

ON Thursday, the 13th inst., Dr. Cullingworth performed Porro's operation at St. Thomas's Hospital. The patient was thirty years old, the subject of rickety deformity and contraction of the pelvis, and was only 3 ft. 9¾ in. in height. Craniotomy (at full term) was required in 1887, during the first pregnancy, and in 1888 labour was induced at the seventh month. On the present occasion no attempt had been made to induce labour, nor was it in progress. Dr. Cullingworth had intended to perform the Cæsarean section, with removal of the appendages; but the uterus failed to contract after suture of the incision, and, as the hæmorrhage continued to a considerable extent, it was decided to remove the uterus also. This was done above a serre-nœud, in the usual manner. The hæmorrhage had come from a large sinus in the incision, and not from the placental site. The patient rallied well after the operation. Next morning the pulse was 150 and the temperature 101°. Since that time, with the exception of slight attacks of vomiting and flatus, the patient has progressed satisfactorily. The child, a healthy female, weighing 6 lb. 4 oz., has continued well. In the same ward are two cases of successful extirpation of the uterus for malignant disease of the cervix, which with two other cases operated on last year will form the subject of a paper to be read at the next meeting of the Obstetrical Society.

THE IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE Irish Graduates' Association met for their annual dinner on St. Patrick's Day at St. James's Restaurant. The Association continues to grow, and has now about 500 members—sixty-five have been added in the last year. It was expected that Dr. George H. Kidd, the President, would occupy the chair, but he was prevented from doing so, and at his request Sir Walter Foster presided. Reference was made in the course of the evening to the action taken by the Council of the Association with respect to the question of the exclusion of Irish diplomates from hospital appointments in England; also to the proposed formation of branches of the Association. All regretted the absence of Dr. Kidd, but Sir Walter Foster ably and genially discharged his duties. His proposal of the health of Her Majesty was in admirable taste and warmly responded to. The guests were numerous, and included Lieutenant Stairs, Sir Thomas Vine, M. du Chaillu, Mr. Thaddeus, and

others. Professor Macalister proposed "The Services," remarking on the preference of Irish students for the army to the navy. The toast of "Our Guests" was proposed by Sir Thos. Crawford. The speech of the evening was that of Lieutenant Stairs, though it scarcely occupied five minutes. We have given the pith of it in another column. The toast of the evening, that of the Association itself, was proposed by Dr. Murray Lindsay, in which he announced what he regards as a triumph over monopolies in medical qualifications at Derby. It is clear, from the pleasure with which his announcement was received, that such monopolies do not find any favour in the Irish Graduates' Association. Dr. Macnaughton Jones replied. Dr. Mapother concluded the toast list by proposing the health of the Chairman.

A SUGGESTION FOR THE FOREIGN OFFICE.

MANY of the British Consuls abroad furnish in their annual trade reports a few statements of births and deaths of the countries wherein they reside. Similar information might prove of great service if collected regularly and forwarded at stated intervals to the Foreign Office. The Government representatives abroad might advantageously report, say, at the beginning and end of the "season" upon such matters as the most common forms of disease, the general sanitary conditions, variations in climate, character of the water-supply, and other points of interest to English medical men. At present some few members of our consular service do this, but frequently the information reaches this country too late to be of practical value, either to invalids going abroad or to physicians advising their patients to other climes. We trust the Foreign Office will, in the event of such recommendations being adopted, urge upon their representatives the importance of transmitting the returns as early as possible. It seems quite reasonable to venture a request for some news regarding continental health resorts, in order that medical advisers at home may have trustworthy data upon which to work in recommending certain towns and seaports for their patients.

POST-HEMIPLEGIC CHOREA.

DR. RUBINO describes in *La Riforma Medica* an interesting case seen by him in the St. Thomas Poliambulance, Naples. The patient was a little girl then aged nine, who, apparently having been infected with syphilis, developed at the age of eleven months a sore on the tongue. A few days later, after some feverishness, hemiplegia, with clonic spasms and loss of consciousness, set in. Under anti-syphilitic treatment, continued for two years, partial recovery took place; but the left arm and leg had but little power of voluntary motion, though both the limbs were subject to clonic irregular spasmodic movements. The intelligence appeared to have returned, but the power of speech was very rudimentary. After this some further improvement was obtained by the use of the galvanic current, but when she came under Dr. Rubino's observation at the age of nine there was still great want of power, combined with choreic movements of the left arm and leg. There was no reaction of degeneration. The intelligence appeared to be keen, but she was slow in responding to questions, as if there were a difficulty in translating thoughts into words, and her speech was laboured and confused. Dr. Rubino believes that a focus of cortical encephalitis, probably combined with meningitis, was set up in the left hemisphere, and that the cause of this was syphilis. Although no rash was observed at the time, it does not follow that there was none. If this were really a case of syphilis, it is a rare one, though Simon mentions four instances in which encephalitis had been caused by syphilis. The rapidity with which the disease attacked the brain may perhaps be accounted for by the slight capacity of resistance in a child under a year old, and the great tendency there is at this time of life for tuberculosis and other infectious diseases to attack the brain. The persistence of the symptoms is to be ascribed to sclerosis following the acute inflammation, and to atrophy of the cortical area in which it occurred.

THE HOWARD ASSOCIATION.

ON the occasion of the centenary of this Association a pamphlet has been issued summarising its services. Members and officials connected with the Legislatures both at home and abroad have repeatedly acknowledged the valuable aid they have received from this Association for the discussion and enactment of important measures. In addition to numerous communications to public journals the Society has circulated many books and pamphlets throughout the world dealing with the objects for which it was originally promoted. The committee has recently distributed gratuitously to administrators and official persons throughout the world a new work by their secretary, entitled "Penological and Preventive Principles, with special reference to Europe and America," which has elicited marked commendation from many practical authorities both at home and abroad. From these and many other facts which might be adduced it may readily be inferred that this Association deserves well of the public in consideration of the good work it has done for suffering humanity.

THE OBSTETRIC "BINDER."

AN interesting discussion took place on this subject at the Obstetrical Society, the abstract of which will be found in THE LANCET for March 15th. The alleged uses of the binder cited by the reader of the paper (Dr. Herman) were (1) comfort, (2) maintenance of the intra-abdominal pressure, and (3) preservation of the "figure." The maintenance of the intra-abdominal pressure has been thought to prevent flooding. As to this, the author did not believe that this effect could be relied on, and some speakers agreed with him. The bulk of the paper concerned measurements of the base of the chest, which was shown to be practically unaffected by the binder. The conclusion arrived at was that, except as regarded the comfort of the patient, the use of a binder was a matter of indifference. As one of the speakers pointed out, the meaning of "waist" and "figure" varied with the fashion; but the Society seemed to think that the support of the abdomen during the post-partum involution of its walls was not a matter of indifference, and that the binder was, after all, a valuable safeguard against "pendulous belly" when properly used.

MULTIPLE ROUND-CELLED SARCOMA OF THE SKIN.

DR. H. V. TRUSHENNIKOFF describes in the *Russkaya Meditsina* a rare case of multiple sarcoma of the skin, which has recently been in Professor Polotebnoff's dermatological clinic. A man thirty-seven years of age after an attack of pleuro-pneumonia noticed two small tumours on his left breast. These continued to increase in size, and were before long followed by other similar tumours on the right breast, and then on the scalp, neck, and trunk. Some six weeks after the first were noticed he was admitted into the dermatological clinic, and by that time there were fully two hundred tumours scattered about all over the surface of the body, varying in size from that of a pea to that of half an egg. The man was anæmic and very weak. In spite of good food and treatment he died a few days later, and at the post-mortem examination it was found that the

lungs, pancreas, dura mater, thyroid, kidneys, and even the cranial bones were studded with tumours of the same character as those on the skin. On microscopical examination their structure was seen to be that of a round-celled sarcoma. As to the etiology of the disease, the patient's wife ascribed the first tumours to a slight injury he had received on the left breast before being laid up with the pleuro-pneumonia. The rapid spread of the sarcomata was probably in some degree due to the general debility following the lung affection, and to the fact that the constitution had been weakened by addiction to drink.

HEALTH OF THE ITALIAN NAVY.

THE Italian Minister of Marine has just presented to the Chamber of Deputies the annual report on the health of the Navy for the past year. That report his Excellency considers a satisfactory one. The number of patients under treatment in the naval hospitals has been on an average 31·13 per 1000 of the combatant force. The mortality in the clinical wards of those hospitals has amounted to 6·32 per 1000 of the patients, but with respect to the entire combatant force has been not more than 4·93. In the number of *riforme*—that is, of men relieved from service on account of physical disqualification—there has been a diminution, about 6 men (the exact figures would be 5·97) per 1000 having been lost, as compared with 8·08 in the previous statistical year. So that, what with actual mortality and these *riforme*, the absolute loss of men in the crews of the combatant force has been 11 per 1000. Throughout the year there have been no maladies of an exceptional character. In the naval station of the Red Sea there was registered but one case of death, and that was due to grave traumatic lesion.

PROSPECTS OF CHOLERA IN SOUTH-EASTERN EUROPE.

THE Russian Government are evidently very anxious as to the possibility of a recrudescence of cholera this year in Mesopotamia and in Persia, and as to the chance of its making its way into South-Eastern Russia by means of the ordinary trade routes. Special arrangements have been made at Batoum for the detention in quarantine of arrivals from the infected countries, that port being one of the principal centres by which access to European Russia is secured *viâ* the Black Sea; and similar detentions are to be effected at ports on the Caspian. There are, however, already rumours of cases in the Volga provinces; and it is to be feared that the poverty and dirt which largely abounded in that part of the Russian empire during the last plague epidemic in Astrakan are still prevailing features of that district. Measures are being taken by the Turkish Government, who regarded last year's epidemic in Mesopotamia as having been imported from Medjid, to secure such arrangements at the latter place as shall prevent a recurrence of the same danger during the coming summer.

PARALYSIS OF THE FACE FOLLOWING TOOTH EXTRACTION.

AT a meeting of the Odonto-Chirurgical Society of Scotland, a report of which appears in the *Journal of the British Dental Association*, Mr. Watson mentioned an interesting case of motor and sensory paralysis after tooth extraction. The patient, a lady, had two teeth extracted under the influence of nitrous oxide gas, the second lower bicuspid and first molar. On regaining consciousness she complained of a want of power and feeling in the lip of the side operated on. Examination showed that a portion of the lip in the neighbourhood of the mental foramen was insensitive and somewhat powerless. Six months later the part had not quite recovered itself. The accident is a somewhat uncommon one in connexion with the removal of teeth so near the anterior portion of the jaw, and Mr. Watson believes the cause in this case to have been a stretching of the inferior dental nerve, which was adherent to, or entangled in the roots of, one or both of the extracted teeth.

THE REDUCED USE OF ALCOHOL IN HOSPITALS.

THIS subject has been under discussion by the Hospitals Committee of the Liverpool City Council, where one member said the use of stimulants had decreased in 164 hospitals in the country about 60½ per cent. He complained that in the Liverpool hospitals the reduction had not been in the same ratio. It was resolved that the medical officer of the Netherfield-road Hospital—where the largest quantity of stimulants is consumed—should be requested to furnish the committee with a report. This report should be of much interest. No doubt the medical officers will be well prepared to give it. There can be no question of the greatly diminished use of stimulants in all good medical practice, hospital or private. Liverpool disease and vitality may have some special features, and the rule of one place may not serve as the rule of another. But even here the underlying principles of practice are the same.

THE SANITARY STATE OF VENICE.

ACCORDING to a report which Vice-Consul de Zuccato has recently presented to the Foreign Office, it would appear that the sanitary circumstances of Venice remain very unsatisfactory. The population of that city now amounts to 153,575, who reside in some 19,000 houses. Of this number of dwellings no less than 13,000 still discharge their excreta and liquid refuse into the canals, either directly, or indirectly by means of conduits passing under the streets. In 1887 an English company opened negotiations for securing land and for the compulsory application of a carbon system to the sewage of the city. In this way a manure would have been manufactured which would have been of value to the surrounding country, and the great expense of excavating the canals and clearing the conduits of their accumulated filth would have been avoided. But difficulties were raised, and Venice remains a place which deliberately turns its otherwise attractive waterways into a series of tideless cesspools.

THE WEEKLY HALF-HOLIDAY BILL.

IN this era of universal activity and of struggling competition we are happily not without the consoling reflection that Nature steadily makes compensation wherever excess has occurred, and sooner or later has humanity with her in the work. Of this regulative process the history of labour furnishes many examples. The Conference now sitting at Berlin is one such. Without pretending to the same scope or world-attracting character, a series of measures have during the past few years engaged the attention of reformers in this country. Some, like the Factory Act, have indeed enjoyed already a lengthy term of usefulness. Others, again, have as yet no active life, though the need of their operation is daily attested by the injurious effects of business over-pressure. Among these is the Weekly Half-holiday Bill, a worthy companion to the Shop Hours Regulation Act, and introduced, like it, by Sir John Lubbock. The plan and purpose of the new measure were fully discussed by a deputation which waited upon the Home Secretary last week to ask a special day for its consideration in Parliament. Its claim, that in any district a majority of two to one among the shopkeepers entitles the local authority to insist upon the observance of a weekly

half-holiday in all shops in the said district, can hardly be called an unfair one. The facts urged in its favour by the deputation show this. They remind us that at present a term of fourteen and even sixteen hours a day is usual in shop service, and they quote the opinion strongly expressed by influential members of our profession that "these prolonged hours of labour are grievously prejudicial to health, especially in the case of women." As regards the prospects of moral and intellectual health, a similar agreement exists among the representative exponents of religious belief, and will without fail be endorsed by every unprejudiced thinker. Education, recreation, every means of self-improvement, mere physical existence, are each and all enfeebled in their action by this total absorption of the powers in the task of earning daily bread. The life is being given in exchange for the meat which alone cannot sustain it, and we daily see the consequence in withered health and flagging vigour. It would probably be not too much to say that in London at least every other female shop assistant, and a nearly equal number of male *employés*, are suffering from anæmia, if nothing more serious. In the face of this undoubted fact, the scandal of overwork now prevalent acquires a very real importance. It is clear that, thus crippled, men cannot possess the natural power of manhood, and women must be weakened below the requirements of healthy maternity. What, then, of a national future? Every city practitioner has daily experience of the evil, yet he knows that to apply an effective remedy is beyond his power. In the assurance of most careful consideration afforded by the Home Secretary, we have at least an indication that so grave a matter will not be treated by the Government as a mere non-political trifle. Allied in character to the proposed Bill is another intended to limit the working hours of barmaids to seventy-two a week, to provide them with sanitary lodging, and otherwise to improve their present condition. The need of these reforms has long been obvious. As regards the duration of service, the mere fact that the working week will still be equal to six days of twelve hours is enough to prove the existence of over-pressure, for which a broken seventh "day of rest" affords no true relief.

CRUELTY IN CIRCUS TRAINING.

THERE is, unfortunately, too good ground for the belief that the training of circus children is not only an arduous but often a really cruel process. The question as to how far it is at present legally preventable is not an altogether simple one. It was discussed a few days ago, at a private conference of members of Parliament, in one of the committee-rooms of the House of Commons. On this occasion no precise resolution was arrived at, but it was agreed that some form of State control was called for, and that it might be exercised with some effect, provided that regular apprenticeship and registration of the children thus employed were insisted on. These conditions would doubtless tend to improve the prospects of the children performers. It is to be hoped, however, that in any case of this kind large discretionary powers will also be allowed to judges in deciding what is implied in the term "cruelty" when it is disguised under the name of professional utility.

THE STATE AS PARENT.

AMONG the difficulties with which our parochial authorities are confronted in their efforts to provide for neglected children, none is more annoying or more discouraging than that presented by the occasional interference of dissolute or vicious parents. The recent Cruelty to Children Act, indeed, has done something towards establishing the claim of the State in such cases, but the remedy provided is by no means as drastic as those approved in some other places. Let us take, for example, Tasmania. Recent legislation in that colony has decided that where a juvenile offender has been sentenced to detention in a certified training school the school managers shall become guardians of the said child until he or she is twenty years of age, and it excludes entirely the exercise of parental control so long as the school serves as a temporary home. A further provision authorises the summary punishment of any parent who wilfully neglects and so endangers the health of his child under fourteen years of age. This latter clause, it will be remembered, also forms a part of the Act already mentioned. That bearing upon the question of interference is by no means limited to Tasmania, but is embodied also in the legislative codes of South Australia, New Zealand, Massachusetts, France, and Germany. Of its practical efficiency there can be no question, though many persons in this country may dislike the apparent obliteration of a natural right of guardianship. Where such a right exists in any appreciable degree it certainly deserves to be respected. Where, on the other hand, it has already been virtually and entirely surrendered by a vicious or callous parent, where a child is consequently destitute, it must be allowed that the guardian care of the State should not be lightly interfered with. In such a case the cause of liberty is doubtless best served by sustaining the right of the child against the abused authority of a merely nominal parent.

THE ALLEGED "NEW DISEASE."

ABOUT a week ago reports were received from Rome and Vienna of the appearance in the northern provinces of Italy, and subsequently in Hungary, of cases of lethargy or trance, termed by the country folk "La Nona," amongst individuals who had previously passed through a severe attack of influenza. The information at present received is far too scanty to admit of any surmise as to the nature of these cases, or to judge of the extent of its occurrence. It must suffice to observe that it has been long known that certain cases of influenza are accompanied more or less by severe symptoms of nervous disorder, and exhausting diseases, as typhoid fever, have been occasionally followed by the condition of trance. Among the negroes of the West Coast of Africa there have occurred cases of a curious but highly fatal "sleeping sickness," concerning which but little is accurately known. On the other hand, it must be borne in mind that amongst susceptible subjects the condition of spontaneous "trance," which is obviously allied to the hysterical state, may occur amongst groups of individuals and be spread in a so-called "epidemic" manner, like the nervous affections of which Hecker wrote so instructive an account.

"MORE THAN ARMIES TO THE PUBLIC WEAL."

WITH the eloquent brevity of a soldier, Lieutenant Stairs, at the meeting of the Irish Graduates' Association, condensed into a few words a very high eulogium on Surgeon Parke, of the Stanley Expedition, which we cannot forbear reproducing. He said "he considered that Parke had saved the life of every white man in the expedition, that he had saved his (Lieutenant Stairs's) life, and that he had saved Stanley's life *twice*." The medical profession comes in for much banter and sometimes for deliberate disparagement from ungracious or foolish people; but when one of its members alone can be so credited as Surgeon Parke is credited in these words of Lieutenant Stairs', we can afford to let satire and ungraciousness do their worst. If what Lieutenant Stairs says be true—and no one who heard him could have any doubt about it,—it follows that a great and historical achievement would have been turned into a grave and tragical disaster but for the skill and care of its medical officer.

HONOUR TO SIR JOSEPH LISTER.

IN Rome the magnificent Policlinico Umberto I., or great medical and surgical hospital and school now slowly rising to completion, is to have its two principal façades ornamented with bas-reliefs in honour of the two men who, in the judgment of our Italian brethren, have conferred the most signal benefits on the sister branches of the healing art. Medicine is to be represented by the pioneer of pathology as it is now studied and taught, Giovanni Battista Morgagni of Padua; surgery by the author of the antiseptic system, Sir Joseph Lister. Already a competition for the best designs for the bas-reliefs in question has been announced, and a Commissione Aggiudicatrice, consisting of two architects, two sculptors, and two painters, has been formed, under the presidency of the guiding spirit of the Policlinico, Professor Guido Baccelli. The best artists in Italy are expected to compete, the prize for the successful design of each bas-relief being great enough to induce the leaders of the statuary art throughout the peninsula to suspend all other engagements for the honourable rivalry. The stone employed for the bas-reliefs will be the "pietra di Monte Afilano," well chosen to combine the requisites of fineness of grain, richness of colour, and durability for the material in which Rome seeks to embody a worthy accession to her artistic masterpieces.

THE EFFECT OF SACCHARIN ON THE ASSIMILATION OF FAT.

DR. VINOKUROFF of St. Petersburg has been engaged in testing the question whether saccharin has any injurious effect on the assimilation of fat in the healthy body. For this purpose he enlisted the services of seven students and other healthy persons, and, after examining quantitatively their diet and fæces so as to determine the normal capacity for assimilating fat in each case, he administered saccharin —a drachm per diem—to some, and double that quantity to others. To some also sugar to the amount of about two ounces per diem was allowed; while others were kept without sugar. The diet and fæces were examined as before, and the analyses were continued for some days after the saccharin had been stopped. The results showed that no very marked effect had been produced by the saccharin upon the percentage of fat assimilated. It certainly did not diminish it; indeed, taking the mean of all the observations, there was a slight increase in the fat assimilated both during and after the taking of the saccharin.

A ROYAL COMMISSION ON HOSPITALS.

AT the meeting of the Charity Organisation Society the question of the need for a Royal Commission of Inquiry into the Working of our Hospital System was raised. It was remarked that something like £100,000 a year is spent in appeals, most of which, under a better system, and with a reduced number of well-supported institutions, would go to the benefit of the patients.

MEDICAL STUDENTS AND RISK OF INFECTION.

WITH a class of 140 or 150 students in the Edinburgh City Free Hospital, Dr. Jamieson last year had no instance of a student being infected. This winter one has contracted scarlet fever. It is not certain that he got it in the hospital. He has made an excellent recovery. Dr. Jamieson would do well to publish the methods by which he secures such immunity for his students.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Erwin von Esmarch, a son of the great Kiel surgeon, has just qualified as *privat-docent* in Bacteriology and Hygiene. The names mentioned in connexion with the late Professor Westphal's professorship are Professor Grashey of Munich, Dr. Moeli of Dalldorf, Professor Jolly of Strassburg, and Professor Hitzig of Halle.

Buda-Pesth.—Professor Arpad Bókay of Clausenburg has been appointed to the chair of Pharmacology. A Dental Clinic has just been opened under Dr. Arkövy.

Clausenburg.—The vacancy about to occur in the chair of Pharmacology is likely to be filled by the appointment of Dr. Tóth. Dr. Engel has been appointed as Director of the Hospital in which the University Clinic is.

Halle.—Professor Bergmann of Marburg is stated to have declined an invitation to take the chair of Physiology.

Prague (Bohemian University).—Dr. Belohradsky, *privat-docent* in Forensic Medicine, has been granted the title of Extraordinary Professor.

Tomsk.—Dr. Albitski of St. Petersburg has been appointed Extraordinary Professor of General Pathology. Dr. Kapustin of St. Petersburg has been appointed Extraordinary Professor of Physics.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—

Dr. Marino Turchi, Professor of Hygiene in the University of Naples, at the age of eighty-one.—Dr. Greve of Berlin.—Dr. Wikozemski of Dorpat.

MR. W. G. MARSHALL, M.R.C.S., lately medical superintendent of the female department of Colney Hatch Asylum, having offered his resignation of that post, which has been accepted by the London County Council, that body at it last meeting passed the following resolution: "That the superannuation allowance of £633 6s. 8d. per annum, being an amount equal to and not exceeding two-thirds of his present salary and emoluments, granted by the Asylums Committee to Mr. William Gurslave Marshall be now confirmed; and such allowance shall date from March 14th inst., when he will have left the asylum."

THE report by Messrs. Crookes, Odling, and Meymott Tidy on the London water-supply for the month ending February, 1890, contains the analysis of 168 samples, the whole of which, except in two cases, were found to be clear, bright, and well filtered, and the proportion of organic carbon found in the water, though still low, both absolutely and in regard to the period of the year, has not continued to be of the exceptional degree of lowness for the season taken note of in the reports for the previous two months.

THE number of medical students in the Austrian Universities has slightly decreased, the number of regularly entered students being at present 5030, whereas last winter it was 5666. By far the largest school is that of Vienna, where, in addition to the 2076 ordinary students, there are 513 who have entered for partial courses. Innsbruck is the smallest of the Austrian medical faculties, the total number of students, even including a few occasional students, being only 282.

ON the 17th inst., Dr. John Macpherson, Inspector-General of Hospitals (retired), died at his house in Curzon-street, Mayfair, in his seventy-third year. Dr. Macpherson was well known to professional men as the author of works on balneology.

SURGEON-GENERAL T. GRAHAM BALFOUR, M.D., F.R.S., has been nominated to be a Manager of the Metropolitan Asylums Board.

AT the meetings of the Medical Society of London on April 14th and 21st there will be a debate on Abdominal Surgery. It will be opened by Mr. Meredith, who will exclude the subject of intestinal surgery, and also all operations on the pelvic organs performed through the vagina. Sir Spencer Wells, Mr. Keith, and all the leading metropolitan and provincial surgeons who have distinguished themselves in this branch of practice will be invited to take part in the discussion.

W. D. HALLIBURTON, M.D., B.Sc., M.R.C.P., late Assistant Professor of Physiology, University College, London, has been appointed Professor of Physiology in King's College, in the vacancy created by the resignation of Dr. Gerald Yeo.

ADVICES from Dunedin, New Zealand, state that the influenza has appeared there, and is spreading with great rapidity. Four hundred cases have occurred in that city within the last two days. The epidemic has, however, only assumed a mild form.

PROFESSOR SOCIN of Bâle has succeeded in removing a cancerous growth from the inner aspect of the larynx. The operation has succeeded perfectly, the patient being now able to resume his work with no abatement of efficiency.

THE EARL OF CAMPERDOWN'S COMMITTEE ON THE MEDICAL DEPARTMENTS OF THE ARMY AND NAVY.

WE have received from the Secretary of State for War the following official memorandum showing the decisions at which he has arrived with regard to the various recommendations made by Lord Camperdown's Committee on the Medical Departments of the Army and Navy.

RECOMMENDATIONS.	STEPS TAKEN.
I.—ARMY.	
Constitution, Rank, &c.	
1. Ranks to be—	1. As at present.

—	Present Title.	Relative Rank.
Surg.-Genl.	Surgeon-Genl. ..	Major-Genl.
Surg.-Col...	Deputy Surgeon-General.	Colonel.
Surg.-Lt.-Colonel.	Brigade Surgeon, and Surgeon Major ranking as Lieut.-Col.	Lieut.-Col.
Surg.-Maj..	Surgeon-Major ..	Major.
Surg.-Capt.	Surgeon (after 3 years' service).	Captain.
Surg.-Lieut.	Surgeon (under 3 years' service).	Lieutenant.

Sir W. Crossman, Rear-Admiral Hotham, and Mr. Bartley dissent.]

2. The medical rank and relative Army rank of an Officer to be stated on his commission.	2. Approved, wherever possible.
3. Relative rank to hold for all purposes except military command.	3. Approved. "Ranking with" being substituted for "Relative rank."
4. The first fifty Surgeons-Lieutenant-Colonel to have pay and allowances now given to Brigade Surgeons; but to lose their right to retire after twenty years' service.	4. Not approved.
Appointment.	
5. Candidates producing the diploma of the Society of Apothecaries not to be required to produce a second diploma.	5. Approved.
6. Some appointments to be given, without examination, to House Surgeons or House Physicians at hospitals recognised by the General Medical Council.	6. Approved, when necessary.
7. Commissions to date from time of entering the Service, not from that of leaving Netley	7 Not approved, but will be further considered with India.
8. Examination for rank of Surgeon-Major to be conducted by a mixed Board; the Examiners in Medicine and Surgery to be chosen from outside the Medical Staff.	8. Approved.
9. Examinations for ranks above Surgeon-Major to be dispensed with.	9. Approved.
10. In promotion to Brigade Surgeon and higher ranks, a preference to be given to officers who have distinguished themselves. [This seems not to agree with No. 5.]	10. Approved.
11. Promotion to highest ranks to be by very careful selection.	11. Approved.
Retirement.	
12. Retirement on gratuity of £500 after six years' service *not* recommended. [Lord Camperdown and Mr. Macnamara dissent, and recommend that such optional retirement be allowed.]	
13. [Mr. Bartley recommends the substitution of thirty for twenty years' service for voluntary retirement.]	
14. Surgeons-General to serve till sixty-two years of age. [Mr. Bartley would add that Brigade Surgeons should serve till fifty-seven.]	14. Carried out so far that power is taken in the Warrant to allow of it.
15. Two years' service in the rank of Surgeon-General and Deputy Surgeon-General, and three years in that of Brigade Surgeon, to be required before allowing an officer to retire on the retired pay of the rank, except in a case of permanent ill-health contracted in and by the Service. [Mr. Bartley would require three years in every rank.]	15. Carried out, with three years all ranks.
Service, Duties, &c.	
16. Tour of foreign service not to exceed five years, except in case of emergency.	16. Not accepted.
17. On first appointment, a medical officer to be attached for a definite term to a regiment or other administrative unit.	17. Not accepted.
18. Once in seven years an officer to have three months' special leave, to improve himself in professional knowledge.	18. Not accepted.
19. A medical officer on leave [*query*—on half-pay?] on account of illness contracted in and by the Service to have the same privileges as a combatant officer.	19. Not accepted.
20. Advantages as to pay and allowances given at home also to be given in India.	20. A matter for India.
21. Employment of retired officers to fill medical appointments at home is condemned.	21. Not accepted.
22. Officers in charge of Station Hospitals to take a fair share of executive duty.	22. Approved, where possible.
23. A careful inquiry to be made into establishments of Station Hospitals.	23. Approved.
24. At small Home Stations civil practitioners to be employed where practicable. [Dr. Balfour dissents.]	24. Approved, when practicable.
II.—ROYAL NAVY.	
25. Inspectors of Hospitals and Fleets not to be compulsorily retired before age of sixty-two.	
26. Officers to have opportunities from time to time for improving themselves by professional and scientific study.	
27. Yarmouth Hospital to be utilised more fully.	

We confess to a feeling of surprise and regret at these conclusions—surprise that Mr. Stanhope should so completely refuse to accept the recommendations of a committee appointed by himself to inquire into the unsatisfactory state of an important branch of the Service, and regret that he should attach so little importance to the redress of grievances which have been pointed out so temperately, and which are undoubtedly exercising an injurious influence upon the Army Medical Service. Mr. Stanhope declines to accept almost all the suggestions which have a practical bearing upon the status and welfare of the medical officers, and some of those which he does accept he modifies in an unsatisfactory manner—such, for instance, as requiring three years' service in the higher ranks before an officer is entitled to retire, instead of two as recommended by the Committee. The only concession of importance he is prepared to make is the abolition of the examination previously to promotion to grades above that of Surgeon-Major. We believe that the result of these decisions will be an increase instead of a diminution of the dissatisfaction now prevailing in the Service, and at no very distant date a difficulty of getting eligible candidates to enter a service in which measures for the amelioration of the condition of the officers are so persistently withheld.

THE PROPOSED HOSPITAL CONVALESCENT HOME.

IN a letter addressed to Sir William Savory on the 15th inst., the Founder of the scheme, in reference to the above home, stated that he had great pleasure in intimating to him, as one of the trustees mentioned in the letter published on the first day of the present year, that a generous friend had, after inquiry into the plans for carrying out the project, without the slightest solicitation made the munificent contribution of £50,000 to the funds, describing himself as "A Willing Helper," and especially deprecating any inquiries into his personality. The letter goes on to say that, "in view of the material and unexpected assistance volunteered by 'A Willing Helper,' I cannot help thinking that his noble example will probably be followed by a few of our wealthy capitalists, and perhaps by some of our leading City companies, desirous, as he is, of seeing the home established on a large and comprehensive basis, and willing to help forward the worthy and speedy accomplishment of so beneficent a work." It is further pointed out that provisional arrangements have just been made to purchase an eligible property fifty acres in extent in a healthy neighbourhood seventeen miles from London for the purposes of the institution.

INTERNATIONAL MEDICAL CONGRESS, 1890.

THE following arrangements have been already made for some of the sectional proceedings at the forthcoming International Medical Congress. Discussions will take place on the following subjects:—

Section of Obstetrics and Gynæcology.—1. Antisepsis in Midwifery; to be opened by Dr. Galabin of London, Dr. Stadfelt of Copenhagen, Dr. Slavijanski of St. Petersburg, and Dr. Fritsch of Breslau. 2. Induction of Premature Labour, its Indications and Methods; to be opened by Dr. Parvin of Philadelphia, Dr. Calderini of Parma, Dr. Macan of Dublin, and Dr. Dohrn of Konigsberg. 3. Vaginal Total Extirpation; to be opened by Dr. Williams of London, Dr. Pozzi of Paris, Dr. Schautz of Prague, and Dr. Olshausen of Berlin. 4. Electrolysis of Myomata; to be opened by Dr. Apostoli of Paris, Dr. Keith of London, Dr. Cutter of New York, and Dr. Zweifel of Leipsic.

Section of Neurology and Psychiatry.—1. Surgery of the Central Nervous System; to be opened by Professor Horsley of London. 2. Traumatic Neuroses; to be opened by Professor Schulze of Bonn. 3. The Pathological Anatomy of Dementia Paralytica; to be opened by Professor Mendel of Berlin.

Section of Hygiene.—1. What regulations are needed to prevent the Spread of Diphtheria; by Dr. Roux of Paris, and Dr. Löffler of Greifswald. 2. Prostitution, its Regulation, &c.; by Dr. Thiry of Brussels, and Professor Kaposi of Vienna. 3. Hygiene of Institutions where large numbers are congregated; by Dr. Max-Gruber of Vienna, Dr. Erismann of Moscow, and Dr. Baer of Berlin. 4. The Tuberculosis Question; by Dr. Sormani of Pavia, and Dr. Cornet of Berlin. 5. On the prevalence of Typhoid Fever; by Dr. Walcot of Boston, Dr. von Fodor of Buda-Pesth, and Dr. Almquist of Gothenburg. 6. On the Support of Communities in time of War and Epidemics; by Dr. Forster of Amsterdam. 7. Are Burial-grounds inimical to Health? by Dr. Hofmann of Leipsic, and Dr. Petri of Berlin. 8. On Infantile Mortality and Infant Feeding; by Dr. Flugge of Breslau. Papers are also promised on the following subjects:—Etiology and Prevention of Tetanus, by Dr. Sormani; Hygiene of Travelling and Railways, by Dr. Czatary; the Significance of Venereal Disease in the Medical Control of Prostitution, by Dr. Neisser.

MANCHESTER EAR INSTITUTION.—Dr. Milligan, one of the surgeons to this institution, has recently given a course of demonstrations on Diseases of the Ear to the general practitioners of Manchester and the district. At the close of the course the practitioners' indebtedness to the institution was acknowledged, and a presentation was made to the lecturer by the class.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Aston Manor Urban District.—For three consecutive years a fairly continuous diminution in mortality has been maintained, and the general death-rate for 1889 was 15·1 per 1000 in a population of nearly 70,000. Substantial efforts have also been continued in the direction of controlling the spread of infectious diseases. Thus, a notification system has been in operation; hospital isolation has been carried out; disinfection, cleansing, and lime-washing have been adopted; school closure and other control have been resorted to; and besides vaccination for small-pox, there has been a steady abatement of nuisances which have tended to injure health generally. The infectious hospital is becoming more and more appreciated, and the prevalence of scarlatina in and about Birmingham during last year made it especially useful; no less than 152 patients being admitted from Aston Manor and several adjoining sanitary districts. Diagrams are appended to the report indicating how certain structural sanitary arrangements may be carried out. As regards one of these, the "hopper" closet, we doubt whether the contrivance shown is the best in the interests of cleanliness, and this on the ground that its shape is not well adapted to enable excreta to fall directly into the water and clear of the basin. But it is evident that very carefully supervised sanitary work is in progress, and Mr. Henry May may feel satisfied that his seventeen years of work as health officer have left a substantial and permanent mark on the health records of the district. The subject of infantile diarrhœa still calls for active attention; and from what is said we gather that the important subject of keeping the superficial layers of the soil free from contamination will be more than ever aimed at.

Hereford Combined Sanitary Districts.—Dr. Vavasour Sandford gives a separate account of each of the sanitary divisions of this combined district, some of the reports being mainly made up of descriptions of the current health work which has been in progress. As regards Hereford city, he strongly urges the need for an infectious hospital, for, apart from some disused small-pox tents, Hereford has no such provision. And he assures the corporation that the notification of infectious diseases now in force is certain to prove abortive unless some proper means for isolating the cases heard of is provided. In the Leominster rural district prominence is again given to the need for proper drains and proper drain flushing in the parish of Kingsland, and the authority are warned of the danger of waiting until the present faulty drainage system shall become infected by enteric fever discharges, with the result of an epidemic spread of the disease.

West Hartlepool Urban District.—The general death-rate for this district was 18·1 per 1000 last year. Dr. S Gourley says that the notification system is working well, but that it has succeeded in revealing the need for a new infectious hospital, the present joint establishment being ill-adapted for the purpose, and being the reverse of attractive to those who should use it. Local wells seem still to be in use, but they are fortunately being closed as occasion offers. New public slaughter houses are wanted; but the dairies and cowsheds are well looked after, and their ventilation and drainage have been improved where this has been found necessary.

Teignmouth Urban District.—This district had a death-rate of 16·7 per 1000 in 1889, as compared with the mean rate of 18·5 during the past seven years. Measles caused 17 deaths, and by means of its sequelæ it is believed to have added even more to the deaths of the district. One case of small-pox occurred in March last, and it was removed to a small undetached cottage which at the time did duty as an isolation hospital. The result was that, instead of isolation, spread of the disease took place; two other persons contracting it. The hospital was then closed, and a more isolated building chosen, with the result that no more cases occurred. Such a warning should lead the sanitary authority to be for the future prepared beforehand by the erection of a suitable hospital on the lines laid down in the Isolation Memorandum issued by the Medical Department

of the Local Government Board. This is the more necessary since the Infectious Disease (Notification) Act has been adopted. No steps have as yet been taken to deal with the sewage outfall, a matter that should receive the attention of the authority without further delay.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6081 births and 4401 deaths were registered during the week ending March 15th. The annual rate of mortality in these towns, which had increased from 25·1 to 26·6 per 1000 in the preceding three weeks, declined last week to 23·6; the rate was 20·9 in London and 25·9 in the twenty-seven provincial towns. During the first eleven weeks of the current quarter the death-rate in the twenty-eight towns averaged 25·2 per 1000, and was 2·0 above the mean rate in the corresponding periods of the ten years 1880–89. The lowest rates in these towns last week were 14·4 in Birkenhead, 19·2 in Oldham, 19·4 in Nottingham, and 20·3 in Leicester. The rates in the other towns ranged upwards to 33·4 in Sheffield, 35·9 in Manchester and in Blackburn, and 37·8 in Bolton. The deaths referred to the principal zymotic diseases, which had been 379 and 372 in the preceding two weeks, further declined last week to 366; they included 141 from whooping-cough, 66 from measles, 59 from scarlet fever, 41 from diphtheria, 40 from diarrhœa, 19 from "fever" (principally enteric), and not one from small-pox. The lowest death-rates from these zymotic diseases were recorded in Leicester, Portsmouth, Nottingham, and Birkenhead; while the highest rates occurred in Liverpool, Blackburn, Sheffield, and Bolton. The greatest mortality from whooping-cough occurred in Plymouth, Liverpool, Bolton, and Bristol; from measles in Derby and Norwich; and from scarlet fever in Sheffield and Sunderland. No marked excess of "fever" mortality was recorded in any of these great towns. The 41 deaths from diphtheria in the twenty-eight towns included 25 in London, 3 in Liverpool, 3 in Sheffield, and 2 in Manchester. No death from small-pox was registered in any of the twenty-eight towns. Eight cases of this disease were under treatment on Saturday last in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum and London Fever Hospitals further fell last week to 1153; 76 cases were admitted to these hospitals during the week, against 88 and 53 in the previous two weeks. The deaths referred to diseases of the respiratory organs, which had increased from 439 to 510 in the preceding four weeks, declined again last week to 447, and were 69 below the corrected average. The causes of 112, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Leicester, Oldham, Sunderland, and in four smaller towns; while the largest proportions of uncertified deaths were registered in Huddersfield, Sheffield, Liverpool, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 28·7 to 26·7 per 1000 in the preceding four weeks, further fell to 25·2 in the week ending March 15th; this rate exceeded by 1·6 that which prevailed during the same week in the twenty-eight English towns. The rates in the eight Scotch towns ranged from 17·2 in Paisley and 20·7 in Edinburgh to 26·5 in Aberdeen, 28·1 in Glasgow, and 31·1 in Leith. The 652 deaths in the eight towns showed a decline of 38 from the number in the previous week, and included 39 which were referred to whooping-cough, 28 to measles, 12 to diarrhœa, 10 to diphtheria, 8 to "fever" (typhus, enteric, or ill-defined), 6 to scarlet fever, and not one to small-pox. In all, 103 deaths resulted from these principal zymotic diseases, against 97 and 104 in the preceding two weeks. These 103 deaths were equal to an annual rate of 4·0 per 1000, which exceeded by 2·0 the mean rate last week from the same diseases in the twenty-eight English towns. The highest death-rates from these diseases last week were 4·5 in Glasgow and 8·6 in Leith. The fatal cases of whooping-cough, which had been 53 and 44 in the preceding two weeks, further declined to 39 last week, and included 18 in Glasgow, 7 in Aberdeen, 4 in Edinburgh, and 4 in Leith. The 28 deaths from measles were within one of the number in the previous week, and included 12 in Glasgow, 10 in Edinburgh, and 5 in Leith. The fatal cases of diphtheria, which had been 6 and 11 in the preceding two weeks, were 10 last week; 3 occurred in Glasgow, 3 in Edinburgh, and 2 in Greenock. The 8 deaths referred to "fever" exceeded those recorded in recent weeks, and included 4 in Glasgow and 3 in Leith. Of the 6 deaths from scarlet fever, 2 occurred in Glasgow and 2 in Dundee. The deaths referred to diseases of the respiratory organs in the eight towns, which had declined from 203 to 181 in the preceding three weeks, further fell to 154 last week, and were 19 below the number returned in the corresponding week of last year. The causes of 57, or nearly 9 per cent., of the deaths in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined from 37·8 to 28·2 per 1000 in the preceding four weeks, rose again to 29·0 in the week ending March 15th. During the first eleven weeks of the current quarter the death-rate in the city averaged 37·5 per 1000, the mean rate during the same period being 24·4 in London and 26·0 in Edinburgh. The 196 deaths in Dublin last week exceeded by 5 the number in the preceding week; they included 7 which were referred to whooping-cough, 4 to "fever" (typhus, enteric, or ill-defined), 4 to diarrhœa, 3 to measles, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 21 and 17 in the preceding two weeks, were last week 18; they were equal to an annual rate of 2·7 per 1000, the rate from the same diseases being 2·2 in London and 3·5 in Edinburgh. The fatal cases of whooping-cough, which had been 8 in each of the preceding two weeks, were 7 last week. The deaths referred to different forms of "fever," which had been 9 and 2 in the previous two weeks, rose again to 4 last week; and the three fatal cases of measles showed a decline of 2 from the number in the preceding week. Two inquest cases, but no deaths from violence, were registered; and 71, or more than a third, of the deaths occurred in public institutions. The causes of 14, or more than 7 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL RESERVE OF OFFICERS.—Acting Surgeon William Nettle, 2nd Volunteer Battalion, the Duke of Cornwall's Light Infantry, to be Surgeon, ranking as Captain (dated March 19th, 1890).

ARMY MEDICAL STAFF. — Brigade Surgeon Joseph Fleming, M.D., F.R.C.S. Edinburgh, retires upon retired pay (dated March 19th, 1890). Surgeon Hartwell Woodhouse James retires on temporary half-pay, on account of ill-health (dated March 1st, 1890).—The undermentioned Surgeons, on probation, to be Surgeons, ranking as Captains (dated Feb. 1st, 1890):—Matthew Louis Hughes; William Thomas Mould; Alfred William Bewley; Charles Alfred Stone, M.D.; Hardress James Waller, M.B.; Herbert Edmond Winter; Samuel Guise Moores; and Lewis Way.

ADMIRALTY.—The following appointments have been made:—Surgeon Nicholas C. Ridley to the *Goldfinch* (dated March 13th, 1890); Surgeons William M. Craig, M.B., to Hong-Kong Hospital, and John Dowson to the *Victor Emanuel* (both dated March 17th, 1890).

VOLUNTEER CORPS.—*Artillery:* 2nd Tower Hamlets: W. A. Dingle, M.R.C.S., to be Acting Surgeon (dated March 4th, 1890).—*Rifle:* 8th Volunteer Battalion, the Royal Scots (Lothian Regiment): Acting Surgeon T. S. Kirkland, M.B., resigns his appointment (dated March 15th, 1890).—2nd Volunteer Battalion, the Royal Welsh Fusiliers: The undermentioned Acting Surgeons to be Surgeons:—W. J. Morris (dated March 15th, 1890) and H. J. Roberts (dated March 15th, 1890).—5th (West) Middlesex: Harry Charles Costello Shaw, Gent., to be Acting Surgeon (dated March 15th, 1890).—6th Middlesex (St. George's): Fredk. Enos Fenton, Gent., to be Acting Surgeon (dated March 15th, 1890).—1st Volunteer Battalion, the Royal North Lancashire Regiment: John William Rigby, Gent., to be Acting Surgeon (dated March 15th, 1890).—1st Volunteer Battalion, the Prince of Wales's Volunteers (South Lancashire Regiment): Acting Surgeon J. Adams, M.B., to be Surgeon (dated March 15th, 1890).—1st Wiltshire: Acting Surgeon H. P. Tayler to be Surgeon (dated March 15th, 1890).

Correspondence.

"Audi alteram partem."

CHEYNE-STOKES RESPIRATION.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Stephen Mackenzie's request at the Clinical Society for reports of cases in which patients had developed Cheyne-Stokes respiration and recovered, I send notes of two. The first case occurred six years ago and the second in the early part of 1888; both of the patients I have seen to-day in perfect health. The case which occurred six years ago was that of a boy five years of age; he was taken one afternoon with epileptiform convulsions. Temperature rose to 103°; pulse irregular. The Cheyne-Stokes respiration lasted four hours, during which time there were two or three violent attacks of convulsions lasting from a quarter to half an hour, for which I administered chloroform. On recovering from each fit the characteristic breathing was resumed. The following morning the temperature fell to normal, and the breathing resumed its ordinary character.

The second case occurred two years ago in a child of my own aged four months, and was seen daily by Dr. De Havilland Hall for some time. In this case the illness commenced with the signs of meningeal mischief, and after the child had been ill nearly a week Cheyne-Stokes respiration commenced, and continued for four days. The pauses which occurred sometimes between ten respirations (sometimes many more) were particularly well marked, lasting from five to ten seconds, then the respiration would commence with a deep inspiration which gradually became less frequent and more shallow until another pause came. The temperature before the special breathing was noticed was raised, but afterwards was mostly subnormal; convulsive attacks occurred at intervals for several days, and squinting, which commenced a few days from the beginning of the illness, persisted for several weeks. During the time the Cheyne-Stokes respiration lasted the fontanelles became much depressed, and remained so for two weeks. After the more acute cerebral symptoms ceased hydrocephalus developed, with consequent bulging of the fontanelles and opening of the sutures; these symptoms ceased to increase after six weeks, and although the head is more square than normal and slightly larger, it has long since ceased to grow out of proportion to the other parts of the body, and perfect health has been maintained.

I am, Sirs, yours truly,

JOHN ADAMS, F.R.C.S.

Aldersgate-street, E.C., March 17th, 1890.

To the Editors of THE LANCET.

SIRS,—In reference to the correspondence elicited by Dr. Stephen Mackenzie's question as to the possibility of recovery after the development of Cheyne-Stokes respiration, the following case may be of interest to your readers. On Thursday, the 6th inst., I was summoned to attend a lady, aged twenty-six, who had been under my care for some weeks suffering from advanced phthisis. I found her retching violently, and complaining of extreme pain in both infra-clavicular regions. In a few minutes she became violently delirious, but this soon passed off, and retching, together with extreme pain, came on as before. I injected subcutaneously inj. morph. hypod. (B.P.) m iii. The patient soon became quiet, and lay as if asleep for about ten minutes. The pulse, which had hitherto been fairly good, although frequent, gradually became smaller, until it was barely perceptible at the wrist. At the same time the respiration began to be irregular, and soon came a long pause. The pause was succeeded by a deep sighing respiration; then followed succeeding respirations with increasing rapidity, until the rate exceeded sixty per minute. The rate then gradually diminished down to a pause so long as to make it seem that respiration had entirely ceased. This kind of breathing continued for more than an hour, during which time the patient lay unconscious except for a few lucid intervals of a few seconds each. Ether was administered hypodermically four times. After each there was marked improvement in the pulse, but it was only permanent after the fourth injection. With the final improvement in the pulse the respirations gradually resumed their usual character. The patient seemed to rouse herself and recognised her friends. She then fell into a natural sleep, which lasted nearly four hours, from which she awoke quite conscious, free from pain, but feeling exhausted. She is now in practically the same condition as before the attack twelve days ago.

I am, Sirs, yours faithfully,

WALTER C. AYLWARD, M.R.C.S. &c.

Rusthall, Tunbridge Wells, March 18th, 1890.

THE HOSPITAL SATURDAY FUND AND HOSPITAL ABUSES.

To the Editors of THE LANCET.

SIRS,—Your weighty editorial article on the above must command attention. Impure charity is now the rage. Efforts are being made to sell charity and to convert our hospitals into "commercial concerns." It has been decided that a man has no right to claim Poor-law relief unless he can prove destitution, no matter if he has paid hundreds of pounds in rates. The same should hold good in hospital administration. It seems that the managers of medical charities are determined by their blundering to compel the State to take over their control. Two commissions to inquire into hospital management have already been asked for.

As to the working men asking a *quid pro quo*, this is not to be wondered at. Are not the half-guinea and guinea subscribers given so many tickets of recommendation for each sum sent? Query: If a "gentleman" secure five tickets for 20*s.*, how many should a "working man" obtain for 4*s.*? Why, one. Of course the selling of charity to any person whomsoever is false. But who began it? The moral is: cease giving "tickets of recommendation" to any subscriber. In Birmingham they sell six tickets for 10*s.* 6*d.*, each ticket giving treatment and medicine for six weeks, renewable by paying 3*s.* 6*d.* Happy and charitable Birmingham! Fifteen per cent. philanthropy is the most paying "job" after all. The cent.-per-cent. gentry could hardly exceed such charitable, benevolent, and disinterested work. Yet who started the plan? A doctor. Who carries it on? Why, the doctors. Truly many of us are a most Christ-like profession—but in professing only. We calmly stand by and see the very groundwork of private charity ignored, and meekly watch a splendid system of voluntary relief to the sick poor prostituted. I think it is little wonder that even hospital committees are kicking the medical staffs off, and refusing to associate with them. No doubt, as we make our bed so shall we lie on it. The battle now seems to be between the one penny hospital doctor and the sixpenny dispensary doctor. Which will win? Why, the one who offers his goods at the lowest market price. For my own part, I prefer the sixpenny doctor. He is what he is, and does not pretend to much. He does not blow his charitable horn in the market place, or decorate his "shop" and reports with Bible quotations.—I am, Sirs, yours faithfully,

Liverpool, March, 1890. ROBT. R. RENTOUL.

To the Editors of THE LANCET.

SIRS,—We all owe you our best thanks for your leading article on the Unreasonable Demands of Hospital Saturday Fund Promoters, and your remarks elsewhere on the Growth of Out-patient Departments. The amount of the Saturday Fund is in itself so paltry that it would make but small difference to the hospitals if it were discontinued altogether. It has, moreover, the overwhelming objection that it leads those who contribute to it to imagine they are providing for themselves in case of sickness, and it utterly eradicates all self-esteem, and any feeling of hesitation the working-classes may have to seek medical charity on the most trifling occasion, while the idea of gratitude does not of course enter into a business transaction. The general public does not realise how infinitely small is the amount thus contributed compared with the annual donations, by means of which the hospitals are chiefly maintained—it being, in fact, a mere drop in the ocean.

The Hospital Sunday Fund has also much to answer for in a somewhat different way. It is the aim and object of the management to encourage and magnify by every possible means the attendances in the out-patient department. Upon this number depends to a considerable extent the share in the annual division. Hence both funds each in a

way do more harm than good, and directly encourage the system of abuse which is now so greatly exercising the minds of all interested in this matter. I would suggest an alteration in the basis of division, disregarding altogether out-patients and their attendances; one reason for boasting in this particular would be eliminated, and a considerable change would soon be noticed in hospital statistics.

I am, Sirs, yours faithfully,
J. A. MANSELL MOULLIN.

Wimpole-street, W., March 15th, 1890.

*** Our correspondent is in error in thinking that the Hospital Sunday Fund has anything in its system of awards which favours the mushroom-like growth of the out-patient departments. This system is based on the average total expenditure for three years, with certain deductions for legacies, income from investments, &c. There is a slight discretionary power in the Distribution Committee in the judgment of *merits* and *needs*: but the high numbers of out-patients constitute neither merit nor need. In the Hospital *Saturday* system the capitation principle is still maintained.—ED. L.

TREATMENT OF VITREOUS OPACITIES.

To the Editors of THE LANCET.

SIRS,—In my letter which you kindly published in your issue of March 8th, I inferred that serum effused to take the place of lost vitreous only remained transparent for a short time. Mr. Ford replies that "this is contrary to the experience derived from cataract extractions followed by loss of large amounts of vitreous, which in many cases yield good and permanent results." On this point I am quite at variance with your correspondent; my experience is that fluid effused to take the place of lost vitreous only fulfills its purpose for a short time; vision may at first be extremely good, but soon deteriorates, so that at the end of a year or eighteen months all useful vision is lost, and the eye is found to be soft and shrinking, with large numbers of vitreous opacities, and in some cases detached retina.

With regard to the treatment by subcutaneous injections of pilocarpine, any opinion based on so small an experience as mine, consisting as it does of only seven cases, can be of little value, and might be very misleading; four cases out of the seven appeared to receive some benefit, and I only quote the improvement that took place in these at Mr. Ford's distinct request:—Case 1: A man aged forty-four; right eye blind from previous inflammatory trouble; left eye full of vitreous opacities; this eye improved from counting fingers at one metre to $\frac{6}{24}$, after four weeks' treatment. Case 2: A man aged twenty-four, with numerous vitreous opacities in the left eye; improved from $\frac{6}{36}$ to $\frac{6}{18}$, after three weeks' treatment. Case 3: A girl aged twenty-two, with vitreous opacities in right eye; has advanced from $\frac{6}{60}$ to $\frac{6}{18}$, after three weeks' treatment, which will be completed to-morrow (March 20th). Case 4. A woman aged fifty-four, with vitreous opacities in right eye; improved from $\frac{6}{60}$ to $\frac{6}{9}$, after twenty-two injections. (I am indebted to Mr. Folker, house surgeon to the Royal Westminster Ophthalmic Hospital, for the note of this case.) I trust at some future time, after a more extended trial of this form of treatment, to publish a detailed account of all my cases.

I am, Sirs, yours faithfully,
GUSTAVUS HARTRIDGE, F.R.C.S.,
Surgeon to the Royal Westminster Ophthalmic Hospital, &c.

Green-street, Park-lane, W., March 19th, 1890.

"PROLAPSE OF THE WALL OF THE STOMACH OF A HORSE INTO THE DUODENUM."

To the Editors of THE LANCET.

SIRS,—In your issue of the 8th inst. I observe that Mr. Spencer exhibited at the Pathological Society a specimen of prolapse of the cardiac portion of the stomach into the duodenum of a horse. The case in itself is unique, at least so far as I know, but Mr. Spencer's remarks as to vomiting in the horse detract materially from the value of his communication. He says: "Whilst the horse's stomach does not differ materially from man's, except in the intra-abdominal œsophagus, the animal hardly ever vomited, except when the stomach was ruptured. There was no vomiting in this case."

From what source Mr. Spencer obtained his information in reference to vomiting in the horse I know not, but he has been utterly misled, or he has himself arrived at a wrong conclusion. If I am not mistaken, the theory that vomiting is a sign of gastric rupture in the horse received the greatest amount of support from Bollinger; but it is, at the same time, an old theory, and in my view is opposed to all physical laws. I fail to see how a horse with ruptured stomach *can vomit*; he certainly could not, except on the assumption that the pressure on the intestines was sufficient to occlude the aperture produced by the rupture, and that simultaneously with this and with contraction of the walls of the stomach there was dilatation of the cardiac orifice of the œsophagus—a very improbable occurrence, seeing that the integrity of the gastric walls is done away with in such cases; and, I would ask, would not the amount of force required to propel the gastric contents up the œsophagus be more likely to force the ingesta through the aperture in the stomach walls into the abdominal cavity? I have always taught that the act of vomiting is precedent to the gastric rupture, not subsequent; and on post-mortem examination we always find in cases of complete rupture that the contents of the stomach have been forced into the abdominal cavity, in which it becomes disseminated amongst the intestines, or entangled in the meshes of the omentum or mesentery, or of both. In all cases where the symptoms have indicated the existence of gastric rupture I have never seen vomiting, but I have frequently seen it—or attempts at vomiting—as a precedent phenomenon; and I have on various occasions seen horses vomit when suffering from gastric plethora, and never afterwards exhibit a sign of the existence of an organic lesion such as rupture. How Mr. Spencer could imagine that a horse with the cardiac portion of the stomach involuted into the duodenum could vomit I cannot comprehend.—I am, Sirs, yours truly,

THOMAS WALLEY.

Royal Veterinary College, Edinburgh, March 10th, 1890.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

SIR JAMES CRICHTON BROWNE had a hearty reception on his late visit to Newcastle. Many of his old friends in the north (and they are numerous) were glad to renew their acquaintance, and to see him looking so well. His lecture on Brain Structure was most attentively listened to by a large and appreciative audience, which, as might be expected, comprised a great number of practitioners and students. The chairman, Dr. F. Page, of this city, well expressed the feeling of the audience when he said they were proud of Sir James Crichton Browne's success and well-merited distinctions.

Sunderland.

At a meeting held at the Sunderland Infirmary last week some very satisfactory progress was reported. It was stated that, as a result of the visit to London of the deputation appointed for the purpose, the Ecclesiastical Commissioners had consented to increase their subscription from £500 to £1000 per annum, and that Miss Forster (one of the owners of the South Hetton Colliery) had generously offered to bear the cost of erection of the new isolation wards (£600). Several other large contributions had been made to the infirmary, which will no doubt soon become fully equipped for its work.—The Eye Infirmary at Sunderland is about to receive a larger amount of support from the workmen of the district, who, at a representative meeting held at the institution, passed a resolution to devote one day's pay each during the year. This is to be deducted quarterly, and so it will be little felt by them, while it will amount to an important sum at the year's end. Besides, this mode of regularly subscribing by the workmen gives them a more direct interest in the charity.—The report of the Sunderland Provident Dispensary, read at the annual meeting last week, shows an enormous amount of work done during the past year. The number of prescriptions dispensed was 23,900; the number of visits paid by the medical staff was 16,000. The total income had been £1215. The amount paid the medical officers was small—namely, £600,—considering that the committee have a balance of £214 in hand.

South Shields.

It has been found necessary to close the Ingham Infirmary at South Shields pending some investigation of the drainage arrangements. The health of the medical and nursing staff and matron having become affected, all the patients have been removed to other institutions. The Ingham Infirmary is quite a new building, and was supposed to have been erected with all approved arrangements as to drainage and ventilation.

Middlesbrough.

The new museum at Middlesbrough, with its capital collection of fossils, chiefly from the lias formation, and the ornithological collection, has been enriched by the recent purchase of the Newcastle Natural History cases; to these will be added many curios and local relics. The present premises are temporary, but a more permanent site will be shortly provided by the corporation of Middlesbrough.

Durham.

The annual meeting of the Northumberland and Durham Blind Society has been held in Bishop Cosin's Library, Durham. The Society has now 415 cases. 2502 volumes had been lent during the year to blind persons. The Braille system, which had been introduced last year, showed steady progress. Dr. Moer's jubilee will be remembered this year by the blind, who are contributing to a testimonial in recognition of his labours on their behalf. Mr. Jeaffreson of Newcastle has consented to act as honorary ophthalmic surgeon to the Society.—At a late meeting of the Durham Rural Sanitary Authority, Dr. Jepson of Durham and Mr. Hepburn of Coxhoe were appointed medical officers of the western and eastern districts, at a salary of £75 each. Mr. Blackett, M.R.C.S., of Durham, until lately held these appointments, and only received £75 for the whole, so that it is pleasing to note increased remuneration now for sanitary work.

Newcastle-on-Tyne, March 18th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The General Hospital.

MR. JOHN JAFFRAY presided at the annual meeting of this hospital on the 19th inst. The report states that the total number of in- and out- patients for the year is 49,557, as compared with 45,137 in 1888. The total expenditure in the year amounts to £15,385. The ordinary and extraordinary income, including this year the Hospital Sunday collection, shows an increase of £3196 13*s.* 3*d.* Further, it was shown that in the year there had been 14,189 cases admitted, 9 by ticket and 31,760 admitted free among the out-patients.

The Women's Hospital.

At the annual meeting of this hospital, on the 19th inst., the Mayor, Mr. F. C. Clayton, presiding, it was stated that the number of patients treated at the out-patient department was 3029, an increase of 115 as compared with the previous year. The in-patient department showed a decrease of 50; in all 278. Of the in-patients, the abdominal sections had been 136; of these 14 had died, or 10·3 per cent. The committee stated that after careful investigation they had not succeeded in tracing this increased mortality to any definite cause. An official investigation strongly condemned the use of a ward in the yard as being altogether unfitted for patients of any class owing to sanitary defects. This condition had been altered since. The receipts for the year, increased by several large legacies, was £4077 12*s.* 1*d.*, the expenditure, £1898 2*s.* 1*d.*, leaving an excess of £2179 10*s.*

Birmingham, March 19th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

Royal Society of Edinburgh.

AT an ordinary meeting of the Royal Society held last night, Sir William Thomson, President, read notes on an accidental illustration of the effective ohmic resistance to a transient electric current through an iron bar, which was allowed unwittingly to come in contact with the two poles of a dynamo in action. The effect on the bar was that two hollows were burned out of the rod at the points of contact at the same instant. There was no great blaze of light, and Sir William Thomson suggested that the rod had become instantaneously heated over a filmy portion of the surface. This heated surface had come in contact with the skin of Lord Armstrong, who was holding the bar with his fingers between the two hollows, and burns were inflicted where his fingers touched the metal. The heating of the bar must have been exceedingly superficial, as when picked up immediately afterwards it was found to be quite cold. Professor C. Michie Smith read an interesting paper on the Absorption Spectra of certain Vegetable Colouring Matters. The results he obtained were in some respects similar to those of the hemoglobian spectra; but there were essential differences. The paper was of considerable interest, and was evidently appreciated.

Reparative Surgery.

The future of the repair of bone is a promising one. The various operations for the introduction of bone to fill up gaps are now somewhat numerous, and it is interesting to note that there has been a gradual transition from the use of decalcified bone through the stage of small fragments tightly packed up to the use of large pieces of healthy aseptic bone. Quite recently Mr. A. G. Miller has exhibited a most interesting case to his students, in which he has made a piece of ox rib of considerable size form the foundation of part of a new tibia, to replace what had been destroyed by necrosis. The operation in this case seems to have been very successful, and when Mr. Miller publishes an account, which I have no doubt he will, many points of interest will come up for discussion.

The Close of the Session.

The medical classes close on Friday, the 21st, and indications are not wanting that both teachers and students are looking forward to the recess with feelings of pleasure. The students, however, have, many of them, to face the first and second professional examinations in the University or the three examinations in the Colleges, so that, although the classes are already thinning off somewhat, there is still great activity on the part of those who remain. It is stated that the number of those coming up for the preliminary examination is not quite so great as in former years.

Farewell Social to Dr. G. Sims Woodhead.

Under the auspices of the Edinburgh University Athletic Club, a farewell social gathering to Dr. G. Sims Woodhead was given on the 18th inst., in the University Union, when a very well-chosen programme of songs and instrumental music was presented. During a break in the programme Professor Annandale said Dr. Woodhead had been a member of the University Athletic Club for seventeen years, during which he was for four years a member of the Rugby team. Dr. Woodhead, he was sorry to say, was leaving them, but although they regretted his departure they could not but rejoice in the fact that it was under most pleasant circumstances. He was going to take the management of the most recent pathological laboratory in London, and they could not help feeling that he was going to London to add to the reputation of the Edinburgh Medical School. In the name of the club and many friends Professor Annandale then presented Dr. Woodhead with a handsome silver reading lamp, along with a brooch for Mrs. Woodhead. Dr. Woodhead suitably replied on his own and Mrs. Woodhead's behalf.

Edinburgh, March 18th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Banquet at the Royal College of Surgeons.

MR. AUSTIN MELDON, D.L., J.P., president of the College, entertained his Excellency the Lord-Lieutenant and a large number of distinguished guests to dinner on Saturday last. The banquet was a magnificent one, the menu, service, decorations, and music being exceptionally good, and the entertainment was unquestionably the best of the kind ever given within the walls of the College. The toasts were not too numerous, and the speeches made by the generous host in proposing each were well chosen, and delivered with judgment and eloquence.

Rotunda Lying-in Hospital.

The governors have issued a special appeal for funds for

this excellent charity. Its income has been reduced, as compared with former years; for example, the annual grant of £3000 from Government has been reduced to £700. Further, some structural alterations and improved bath and lavatory arrangements have become necessary. As showing what improved sanitation has effected in the death-rate of inmates admitted to the hospital, it may be mentioned that in 1869 the death-rate was 35 per 1000; in 1879, 10; and last year only 3. The institution is one of the largest and best managed in the three kingdoms, and the governors' appeal should meet with a worthy response.

Royal Academy of Medicine in Ireland.

In the Pathological Section of the seventh volume of Transactions, recently issued, Dr. E. H. Bennett describes a Congenital Malformation of the Humerus in a Mummy, with arthritic changes. Mr. Wheeler has a paper on Syphilitic Deposits in the Tongue, followed by epithelioma, and states as his experience that old syphilitic deposits are fertile sources of cancerous development; and Dr. O'Carroll narrates the history of the case of Leprosy in Dublin which attracted so much attention. Dr. Magee Finny describes a case of a solitary Tubercular Tumour of the Pons in a man aged thirty-five, who had previously shown no evidence of tuberculosis; and Mr. A. H. Benson some examples of Sarcoma of the Choroid. The present volume is not behind its forerunners in interest and value, and, like its predecessors, has been edited by Mr. Thomson in his usually efficient manner.

Dublin Hospital Sunday Fund.

The sixteenth annual meeting was held last week, presided over by the Provost of Trinity College. Sir John Banks, in proposing the adoption of the report of the Council, said it was satisfactory to learn that the amount collected during the past year exceeded that of the previous year, and also that the number of churches in which collections were made was greater than in the year 1888. If the Dublin Hospitals Bill passed, the effect would be to take £4000 from the grant to the Dublin hospitals, and he need scarcely say that the deduction of such a large amount would have the effect of closing a considerable number of beds. It would close altogether one institution (the Richmond Hospital) with which he was connected, and which had done good work in the past, and was doing excellent work this moment. The money which it now received would be distributed among the other hospitals, but they would receive £4000 less than all were now getting. The working expenses of the fund for the year amounted to £260 0*s.* 5*d.*, being £4 15*s.* 1*d.* more than in the preceding year, or 6·25 per cent. on the total collected. Mercer's Hospital is included among the participating hospitals this year.

Sir Charles A. Cameron, M.D.

Sir Charles Cameron, President of the British Public Health Medical Society, gave an "At Home" on Tuesday evening, the 18th inst., and entertained his guests in a most hospitable manner. Among those present were the Prince and Princess Edward of Saxe-Weimar, the Marchioness of Aylesbury, Sir John T. Banks, K.C.B., Sir William Stokes, any many other distinguished persons. There was some excellent music by leading professionals and amateurs, and a series of physical, physiological, and chemical demonstrations by scientists of repute. The guests numbered nearly 400, and a very pleasant and enjoyable evening was spent by those present.

Drunk or Dying?

On the 6th inst. a man named Cummins was brought to the South Dublin Workhouse in an unconscious state, and died the following morning, death being due to an abscess of the brain. The deceased was picked up in the street in an unconscious condition and brought to a Dublin hospital from the police station, where he was charged with drunkenness, but not admitted. As the case will be investigated, it is unnecessary to enter more fully into the matter at present.

Death of Mr. Nicolls of Navan.

The death of Mr. J. P. Nicolls, medical officer of Navan Union Hospital and Dispensary, occurred on the 15th inst., as the result of a wound sustained while making a post-mortem examination. His kindly, genial disposition endeared him to everyone with whom he come in contact, and his decease at the early age of thirty-five years is deeply regretted by all classes, but by none more than by the poor in his district, to whom he was both a skilful adviser and a kind generous, and sympathetic friend.

Health of Ireland in 1889.

The births registered in Ireland during last year amounted to 107,782, or 22·8 per 1000 of the population; while the total number of deaths was 82,986, or 17·5. Of the deaths, 5619, a number equal to 1·2 per 1000 living, were caused by one or other of the principal zymotic diseases.

The salary of Mr. Kenny, M.P., medical officer of the North Dublin Union Workhouse, has been increased from £150 to £200 yearly.

Mr. George Cope, late assistant physician to the Richmond Lunatic Asylum, has been presented, on his resignation, with an address and testimonial by the officers and staff.

Dublin, March 18th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Therapeutic Action of Caffeine.

PROFESSOR GERMAIN SÉE read a paper before the Academy of Medicine on the Action of Caffeine. He began by recalling the extraordinary narratives of travellers concerning the stimulating properties of many vegetable substances which primitive peoples employ to enable them to undergo prolonged fatigue. In every part of the globe some of these marvellous plants are to be found, by the use of which the negro and the Indian are enabled to traverse immense deserts without food. In South America it is the cora or maté or the guarano; in Africa it is the kola nut; in Asia it is the coffee or the tea plant. For several years the last two have been adopted in Europe; and now, at the instigation of Professor Heckel of Marseilles, the kola nut, in the form of cake, is being experimented with among the French troops. It is interesting to remark that all these substances, or nearly all of them, contain one and the same alkaloid, caffeine. The study of the physiological properties of this substance will explain many of the marvels which are related by travellers. At least, that is the idea of Professor Sée, and such is the object of his researches. He remarked that, till now, light has not been thrown on the properties of caffeine, and opinions on its therapeutic action had up till now been very varied. Professor See had performed several experiments during the last twelve months, which placed beyond a doubt the action of caffeine on the muscular function. He related that some young men had one day undertaken long journeys and joined in long foot-races, under the ordinary conditions of food-supply, and on the following day, after having taken from thirty to fifty centigrammes of caffeine; all of them affirmed that the caffeine had prevented any untoward after-effects or any sensation of fatigue. It was also observed by registering apparatus that after a long race there was found no alteration of the circulatory or respiratory rhythm if they had taken the caffeine two hours before running. Professor Sée therefore believed that caffeine placed an untrained man in the position of an individual trained to fatiguing exercises. He concludes that caffeine in man acts on the motor voluntary influx, which starts from the brain with great energy and acts on the more excitable motor centres. Thus the forces are augmented and fatigue is abolished. Caffeine does not act by saving the nitrogenous tissues from wear and tear, but by facilitating the combustion of the ternary elements of the organism. It seems to augment the central temperature, and to increase the excretion of carbonic acid, and thus furnishes strength to a starved individual, but at his own expense. We are here, apparently, in presence of a paradox: the caffeine on the one part accelerates denutrition; on the other it prevents the evil effects of starvation. Caffeine does not save the tissues, as does the complete absence of all work. It acts like a food in repairing their waste. It acts in stimulating the cerebro-spinal functions on the one part, and also in producing a special excitation analogous to that arising from the mere ingestion of any food stuff. It is known that the ingestion of an aliment will increase the strength, even before it is acted on by the gastric juice, by stimulating the organism to make use of its reserve supplies. Professor Sée is just now occupied in pursuing his researches on the action of caffeine on the heart and vessels. This action is very different from what is at present received. To comprehend it, one must first study the

xanthic series. It is known, since the remarkable researches of Professor Gautier on xanthine, which he was the first to reconstitute by synthesis, that the xanthic series comprises paraxanthine, theobromine, and caffeine. Caffeine and theobromine should be placed parallel before pronouncing on their reciprocal cardiac action, as also on the mechanism of the diuretic action which they possess, and on their common power to augment very sensibly the production and the deposit of lithic acid.

The Summer Session at French Medical Schools.

The summer session of the Faculty of Medicine of Paris was opened on the 17th inst., and the courses of lectures will be delivered in the following order:—Natural Medical History, by Professor Baillon; Pharmacology, Professor Regnauld; Physiology, Professor Richet; Surgical Pathology, Professor Guyon; Pathology and General Therapeutics, Professor Bouchard; Experimental and Comparative Pathology, Professor Straus; Hygiene, Professor Proust; Therapeutics and Materia Medica, Professor Hayem; Medical Jurisprudence, Professor Brouardel. Clinical Medicine, Professor Germain Sée, at the Hôtel Dieu; Professor Potain, at La Charité; Professor Jaccoud, at La Pitié; Professor Peter, at Necker Hospital. Mental Pathology and Diseases of the Encephalon, by Professor Ball, at Sainte-Anne Asylum; Diseases of Children, Professor Grancher, at the Hospital for Children; Syphilitic and Cutaneous Maladies, Professor Fournier, at the Hôpital Saint Louis; Maladies of the Nervous System, Professor Charcot, at Salpétrière. Clinical Surgery: Professor Verneuil, at the Hôtel Dieu; Professor Le Fort, at La Pitié; Professor Trélat, at La Charité; Professor Duplay, at Necker Hospital. Clinical Ophthalmology, Professor Panas, at the Hôtel Dieu; Clinical Obstetrics, Professor Tarnier at the Clinical Hospital, and Professor Pinard at the Maternity.

The Hereditary Consequences of Alcoholism.

Madame Lunier, the widow of Dr. Lunier, has presented to the Société Française de Temperance the sum of 1000 f., which is to be awarded to the author of the best work on the following questions: "What are the hereditary consequences of alcoholism and drunkenness?" "What are the means that should be taken to prevent these consequences being produced or for lessening their effects?" Works published during the last two years are, equally with manuscripts, admitted to competition. The manuscripts and printed works, which must be in French and bear the name and address of their authors, should be forwarded before Dec. 31st, 1890, to Dr. Motet, general secretary to the Society, at 161, Rue de Charonne, Paris.

An Anatomical Model.

The conductors of the fine arts in Paris are about to place in the Anatomical Gallery of the National Fine Arts School a study in four subjects of natural size, in which the muscles of the human body are successively represented from the exterior to the skeleton. The work has been produced by M. Jules Talrich, whose figure of the young hysterical female in wax excited considerable attention at the Universal Exhibition last year.

Paris, March 18th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Influenza and Nona.

THREE meetings of the Society of Physicians of Vienna have been devoted to the discussion of the last epidemic, but it cannot be said to have submitted any new detail relating to the etiology or symptomatology of the disease to the public. For some weeks the newspapers here have published reports from time to time of an outbreak in certain villages of a new epidemic called "nona." This new disease was first observed in Upper Italy near the Austrian frontier, and is said to consist of prolonged drowsiness, sleep lasting several days, and frequently terminating fatally. Persons who suffered from influenza, according to the first reports, were said to be peculiarly liable to the new affection. As far as the reports affected Austrian villages they are disproved by official investigation, and the Austrian Board of Health has resolved at the last meeting to collect full information on the so-called "nona" cases in Italy. It is believed that it is possible to regard the condition said to be induced in this disease as a result of the exhaustion arising in some cases of influenza.

The Chair of Physiology.

At the last meeting of the Vienna *Professorencollegium*, the following were proposed as successors of Professor Bruecke: Exner (Vienna), Rollett (Gratz), and Hering (Prague). Professor von Fleischl, the other well-known assistant of Professor Bruecke, was not proposed, owing to the impaired state of his health. As I am informed, Professor Exner will be appointed by the Government. One of the first duties of the new professor will be to prepare plans for the building of a new physiological institute, which should be finished next year.

The Berlin Labour Conference.

Among the Austrian delegates sent to Berlin there is the Austrian head inspector of factories, Herr Migerka, who presided at the meetings of that section of the last International Congress of Hygiene, wherein the hygiene of factories had been discussed, and it may be hoped that he will bear in mind the resolutions accepted by the Hygienic Congress in regard to the labour question.

Parliament and the Medical Profession.

The committee for sanitary affairs of the Austrian Parliament has just finished its reports on the constitution of the *Aerzte Kammern* (Medical Councils), but it does not approve of the proposal by the majority of physicians here that one-third of the members of the Council of Health should be selected by the *Kammer*, and that the latter should give its vote in cases where an action against physicians comes before the courts of law.

Vienna, March 20th.

Obituary.

DR. OTTO BECKER.

DR. OTTO BECKER, professor of ophthalmology in the University of Heidelberg, died there on the 7th inst. He held a leading place among the ophthalmologists of his time, and was one of the few who had witnessed the development of modern ophthalmology almost from the first, and had himself largely contributed to it. He began his study of diseases of the eye about the year 1857. The new era of ophthalmology had begun about six years before. Helmholtz had invented the ophthalmoscope in 1851; Donders had recently founded the theory of refraction and accommodation; Albrecht von Graefe and Ferdinand Arlt had opened up a vast new field to the practical ophthalmic surgeon by their study of the pathological anatomy of the eye and by the introduction of new methods of operating. Becker studied under Graefe in Berlin and Arlt in Vienna. One of his first literary performances was the preparation of a German edition of Donders' great work, "The Anomalies of the Accommodation and Refraction of the Eye," which appeared in 1866. In the following year he, along with Tetzer and Rydel, published a report on the Ophthalmic Hospital of the University of Vienna, to which he contributed many of his own clinical observations. He was called to the chair of Ophthalmology at Heidelberg in 1868, and spent the rest of his life there. It was there that he wrote his two principal works, "The Pathology and Therapeutics of the Lens" (1876), and his "Contribution to the Anatomy of the Lens in Health and in Disease." These works were preceded by two atlases illustrating the diseases of the eye, which were the joint work of Becker, Hitzmann, Hubert, Sattler, and Veith. Among his other writings, we may mention his essays on the "Visible Phenomena of the Movements of the Blood in the Human Retina," on "Strictures of the Lacrymal Canal," on "Congenital Absolute Colour-Blindness," and on the "Vessels of the Human Macula Lutea." On the premature death of Heinrich Müller, the founder of the modern pathological anatomy of the human eye, Becker was chosen to select and edit the ophthalmological writings left by him—a task which he performed with skill and reverence. He also did what in him lay to keep alive the memory of his teacher, Albrecht von Graefe, and it was partly at his instance that a small Graefe Museum was founded at Heidelberg three years

ago; its nucleus was his gift, and he was its curator. His age was sixty-one. His birthplace was Domhof, near Ratzeburg, in Mecklenburg-Strelitz.

CHARLES OSWIN, M.R.C.S.

CHARLES OSWIN, M.R.C.S., was the son of a West Indian merchant, and at an early age determined on joining the medical profession. His father, as soon as he had finished school, apprenticed him to Sir John Chapman, surgeon apothecary to the household of George IV. at Windsor Castle. Afterwards he continued his pupilage under Mr. Rumsey of Beaconsfield. On leaving there he entered St. George's Hospital as house pupil of Sir Benjamin Collins Brodie, Bart., one of the surgeons to the hospital. He continued his studies there, and under Mr. Carpew, the celebrated anatomist, until 1824, when on March 19th he passed the Royal College of Surgeons as a Member, and a few months afterwards passed his examination at the Apothecaries' Hall, becoming a Licentiate of that body. At the time of his death he had, within a few days, completed sixty-six years of professional life. He started practice in London, and continued his work in Harley-street, Cavendish-square, until 1848, when he went to reside at Little Pix Hall. He volunteered to serve in the Crimean War, but was not appointed. On the outbreak of the American War he was asked to join the American service, and served through the war with the rank of Surgeon-Major. He was very fond of his profession and fond of sports, and at the age of seventy-two he had energy sufficient to pursue his favourite sport of riding to hounds in Berkshire when on a visit to Sir Frederick Carden. For the last two years of his life he suffered very much from a stomach affection, to which he succumbed on the 3rd inst.

ESSEX BOWEN, M.D.ST.AND., F.R.C.S. ENG.

DR. ESSEX BOWEN, a well-known practitioner in Birkenhead, died suddenly a little before noon on the 18th inst. The cause appears to have been heart disease. Dr. Bowen was a St. Thomas's student, and took the College and Hall in 1850 and 1851, after which he entered the Royal Artillery as an assistant surgeon, and served throughout the Crimean campaign. On leaving the army he went to Chester, and was appointed surgeon to the Chester General Infirmary. Resigning this appointment and removing to Birkenhead, he was elected surgeon to the Birkenhead Borough Hospital, a post he held for fifteen years. At the time of his decease he was consulting surgeon to the Birkenhead Borough Hospital and to the Wirral Children's Hospital. He was also president of the Birkenhead Medical Society, and presided at a meeting of the Society in his usual health on the 14th inst. Dr. Bowen belonged to a good county family in South Wales, and was J.P. for Pembrokeshire. He was twice married, and leaves a widow and children to mourn their loss. The funeral will take place to-day (Saturday) at Flaybrick-hill Cemetery.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on March 13th the following degrees were conferred:

Bachelors of Medicine and Bachelors of Surgery.—Chas. Christopher Heywood, Trinity; Hubert Stanley, Peterhouse; Harold Low, Gonville and Caius; William Duigan, Christ's.

THE ROYAL HUMANE SOCIETY.—Dr. Alexander Fraser has received a silver medal from this Society for his share in rescuing from drowning, at great peril to his life, two girls from the Carron Dam, near Falkirk, on Feb. 12th.

OBSTETRICAL SOCIETY.—The library of the Obstetrical Society has been removed from 54, Berners-street, W., to 20, Hanover-square, W., where all communications should be addressed.

A THANK-OFFERING.—Lady Howard de Walden, now residing at The Mote, near Maidstone, has intimated her intention of endowing, at a cost of from £10,000 to £12,000, a ward at the West Kent Hospital, at Maidstone, as a thank-offering for recovery from a serious illness.

UNIVERSITY OF SYDNEY.—The chair of Anatomy, founded by the bequest of Mr. Pitt Challis, D.C.L.Oxon., has been filled by the appointment of James T. Wilson, M.B., Demonstrator of Anatomy at the University.

ROYAL COMMISSION ON VACCINATION.—At the meeting of the Commission on Wednesday, Lord Herschell occupying the chair, Mr. Alexander Williams of Darlington, a strong opponent of compulsory vaccination, gave evidence.

THE SUSSEX LUNATIC ASYLUM.—In the report of the Committee of Visitors with regard to this asylum, it is stated that the Commissioners in Lunacy are of opinion that additional pauper accommodation should not be provided on the asylum estate at Hayward's Heath. The committee suggests that if it is decided to build at Hayward's Heath, it is necessary to erect a separate building with administrative accommodation for 1000 patients, and beds in the first instance for 500 patients.

DELANCY FEVER HOSPITAL. — The report of the committee of management of this hospital shows that the new wing is now complete and shortly will be available for the reception of scarlet fever cases. Considerable expense has as usual been incurred in keeping the building scrupulously clean from a sanitary point of view. The committee gratefully acknowledge the assiduous services of their medical officer, and the devotion shown by the matron and her staff. The annual subscriptions show a decrease of nearly £30 as compared with the previous year.

CHESTER GENERAL INFIRMARY. — A largely attended meeting of the governors was held recently at the Town Hall, the chief business being to elect an honorary physician. Colonel Humberston presided. The election of Dr. H. W. King (one of the three candidates) having been made, the Chairman proposed a resolution, which was seconded by the Mayor, to the effect that the governors be empowered to expend £100 for adapting a house at Long Edge for the accommodation of the infirmary nurses, which was necessary in case of an emergency arising. Considerable discussion ensued on the point which was raised—whether the extra accommodation proposed in connexion with the infirmary might not become a rival to the deaconesses' institution in Nicholas-street, which had completed its majority and done such good nursing work amongst the sick poor of the city. Ultimately the resolution was put to the meeting and unanimously carried.

SIMPSON MEMORIAL HOSPITAL.—The annual meeting in connexion with the Simpson Memorial (Maternity) Hospital took place on Friday, March 7th, Dr. Moir in the chair. The Secretary (Mr. Andrew Scott) read the annual report, which was of a favourable character. The number of patients treated in the hospital and at their own homes during last year was 973. There had been a decrease of thirty-six in the number of in-door patients, and an increase of thirty seven in the out-door patients. The deaths had numbered five. The expenditure, £825, had been paid out of the income, and the year had closed with a balance of £54. The Chairman, in moving the adoption of the report, enlarged upon the importance of the institution in affording a training for nurses, of whom forty-one had been trained during the year.

MEDICO-PSYCHOLOGICAL ASSOCIATION. — The quarterly meeting of the Medico-Psychological Association of Great Britain and Ireland, held last week at Owens College, was presided over by Dr. Hayes-Newington, President of the Association. There was a good attendance of the members. At the dinner, which was held at the Queen's Hotel, upwards of sixty members and visitors sat down. The President, in proposing the toast of "The Medico-Psychological Association," invited the company to drink to the continued observance of those objects which led to the formation of the Association, had kept it in existence since then, and which alone would keep it together in the future. In the course of an able address, he gave quotations from the recent report of a committee of the London County Council, from which he showed that if the knowledge of the fountains and springs of insanity was uncertain, as much uncertainty on some of the principal facts underlie other diseases. He said that the dogma of the Association had been to reverse the old principle of laying out plans for the worst cases, and relaxing these plans in favour of milder cases.

THE Buckingham Town Council has resolved to apply to the Local Government Board for their sanction to borrow £18,000 for new sewerage and waterworks.

DENTAL HOSPITAL, LONDON.—The annual report, the thirty-second, just circulated, shows that the institution maintains its successful career; 54,630 cases were treated (a large number of them painlessly, under anæsthetics) during the year 1889, an excess of 3224 on the previous twelve months. The mortgage debt, which was incurred by an absolutely necessary extension of the hospital, still remains an encumbrance on the charity, and additional public support is earnestly solicited.

PLAYING FIELDS FOR LONDON.—Lord Brassey presided recently at a conference of delegates of various Athletic Clubs, held in the Memorial Hall, Farringdon-street, for the purpose of considering the necessity for further provision of playing fields in the metropolis. The object in view is to encourage manly games, and to afford facilities for joining in them. In support of the movement several resolutions were unanimously carried, and the meeting terminated.

GIFT OF A SANATORIUM.—Mr. Richard Cadbury, of Moseley Hall, has addressed to the committee of the Birmingham and Midland Sanatorium a letter containing an offer of the hall where he resides and about twenty acres of land as a sanatorium for women and children, together with a sum of £30,000 for the purpose of adapting the property to its new use and endowing the institution. Mr. Cadbury's offer has been accepted with gratitude by the committee of the institution.

FOOTBALL FATALITIES.—On Saturday, while William Ferrier, a young man aged twenty, was playing in the Grange team in a Rugby match against Walkerburn, at Walkerburn, Peebleshire, a player charged and struck Ferrier, who dropped insensible, and died on Sunday night from concussion of the brain.—Dr. Walker, of Our Boys' Club, Dundee, while playing on Saturday in a football match between Perthshire and Forfarshire, at Perth, collided with another player, was knocked down, became insensible, and sustained a severe contused wound on the brow.

PRESENTATIONS.—On relinquishing his practice at Bishop's Castle, Mr. W. Laird-Cox was entertained at luncheon and presented by a few of his friends and patients, as a mark of their esteem and slight appreciation of his services, with a solid silver bowl and two compotières. The Ancient Order of Lydbury North Foresters the previous evening offered his acceptance of a case of carving and game knives and forks, with an address on vellum.—Dr. W. J. Smyth, M.D. Irel., L.R.C.P. Edin., on his removal from Shipley, Bradford, to Southport, has been presented by his Bradford patients and friends with an illuminated address, expressing their good wishes, gratitude, and friendship. Dr. Smyth had conducted a successful practice at Shipley for sixteen years.—Mr. J. J. Weaver, M.R.C.S., on his resignation of the house surgeonship at the Southport Infirmary has been presented with a handsome marble clock by the nurses of the institution.

QUEEN VICTORIA'S JUBILEE INSTITUTE FOR NURSES.—A public meeting of the women of Galashiels and others interested in the formation of a branch association of Queen Victoria's Jubilee Institute for Nurses was held in the Burgh Buildings on Saturday afternoon, the 8th inst. The room was filled by ladies, and Provost Brown occupied the chair. He briefly introduced Miss Guthrie Wright, the honorary secretary of the Edinburgh centre of the institute, who proceeded to explain to the meeting its objects, character, and methods. She said the Queen had been graciously pleased to devote the surplus of the Women's Jubilee Offering, amounting to £70,000, to found an institute for promoting the training and maintenance of nurses for the sick poor in their own homes. The chief centre was in London, and other central institutions existed in Edinburgh and in Dublin, with which any branch institution might be affiliated. On the motion of Provost Brown it was resolved to form a branch association in Galashiels to procure trained nurses for the sick of the working classes and the poor, in affiliation with the Queen Victoria Jubilee Institute.

SOCIETY OF APOTHECARIES OF LONDON.—The results of the examination in Arts, qualifying for registration as medical student, held in the hall of the Society on March 7th and 8th, have just been published. There were 153 candidates, and from the pass list it appears that seventeen were placed in the second class, and ninety-one were certified as having passed in some subjects, but not in all. The next examination will be held on the 6th and 7th of June next.

HOSPITAL FOR DISEASES OF THE CHEST.—At the Mansion House, on the 14th inst., the seventy-sixth annual court of governors of the Royal Hospital for Diseases of the Chest, City-road, was held. The Lord Mayor presided. The annual subscriptions, the report stated, had steadily fallen off for some time, whereas the charity had increased its power of accommodation, and its work generally. Colonel Makins, M.P., in seconding the motion for the adoption of the report and the balance-sheet, called attention to the financial position of the hospital. Unfortunately they had had during the year to sell out some of their property to pay some of the debts and current expenses. He therefore earnestly trusted that an effort would be speedily made to replace the funded property.

MEDICAL NOTES IN PARLIAMENT.

Army Medical Department.

IN the House of Commons on Thursday, the 13th inst., in the course of the debate of the motion to go into a committee of supply on the Army Estimates, Dr. Farquharson thought it right that it should be known that great dissatisfaction was felt not only in the Army Medical Department, but outside, at the decision which had been arrived at on the report of the committee which sat on the subject. If they did not adopt things which cost money, they might have adopted that which would cost nothing, and still have given great satisfaction to the Army Medical Department—they might have granted titles. He was afraid there was still too much jealousy of medical officers on the part of military men. Some of these gentlemen had expressed before the committee opinions so hostile to the Medical Department that the right hon. gentleman (Mr. Stanhope) had not ventured to lay on the table the evidence upon which the report had been based. When the proper time arrived and the actual vote came on, he would go more fully into facts.—Mr. E. Stanhope said he should reserve himself for that occasion. With regard to the remark that he had not published the evidence, the hon. gentleman himself had seen it, and it was open to any member who wished to see it.—Dr. Farquharson said that the right hon. gentleman was good enough to give him the evidence, but it was given in the strictest confidence.—Dr. Clark asked whether the evidence before the Departmental Committee did not justify the complaint of the medical officers in the army, inasmuch as their term of foreign service was longer and their sick leave insufficient, and the mortality among them was 33 per cent. higher than that of other officers in the service. It was quite time that this unnecessary expense of life among this class of officers should be put an end to. Unless some steps were taken to place the position of medical officers upon a proper footing, only the riff-raff of the medical profession would enter the service.

The Lunacy Laws.

On Monday, the 17th inst., in answer to Mr. W. Corbet, Mr. Matthews said the Commissioners have no power to visit a house suspected of containing a lunatic in illegal charge—i.e., of whom charge is taken for payment. When they receive information which leads them to suppose that a person is being detained as a lunatic illegally, they cause inquiry to be made through the police by means of an order to visit issued by the Lord Chancellor or otherwise, and if evidence can be obtained establishing an infringement of the law, they prosecute the offender.

Infectious Diseases (Prevention) Bill.

The House went into committee on this Bill, which was partially considered when progress was reported.

Infant Life Protection Bill.

On the proposal to read this Bill a second time, Mr. J. R. Kelly, in the course of his remarks, ventured to think the Bill was one not for the protection of infant life, but for the persecution of honest poor parents, and made an appeal to the Government to postpone the second reading.—Mr. McLaren thought the Government ought to give a distinct promise that the Bill would be modified in committee. One objectionable principle was involved in the second clause—namely, that the person placing out the child—presumably the mother—must state her name, the place where she had resided the previous six months, and the place and time of the birth of the child. In his opinion every means possible should be taken to conceal the trouble into which the girl had got, and to give her a chance of recovering her good name.—Dr. Clark did not think the House should adopt the principles embodied in this Bill, which required the registration of any person who should take charge of one child for any period beyond twenty-four hours. In Scotland, certainly, the effect of the Bill would be to manufacture criminals.—Mr. F. S. Powell thought the Bill ought certainly to be referred either to a grand or to a select committee, and he thought the latter preferable.—Mr. Matthews said Her Majesty's Government were quite prepared to refer the Bill to a committee, and if the House preferred a select committee no objection would be raised. The Bill was then read a second time, and referred to a select committee.

Public Health Acts Amendment.

On Tuesday, the 18th inst., on the motion of Mr. Akers-Douglas, the following members were nominated on the Select Committee on the Public Health Acts Amendment Bill:—Sir A. Campbell, Dr. Farquharson, Mr. H. Fowler, Dr. Fox, Mr. E. Hardcastle, Mr. Hastings, Mr. Kenrick, Mr. Long, Mr. F. Powell, Sir A. Rollit, Sir H. Roscoe, Mr. J. Talbot, Dr. Tanner, Mr. Wharton, Mr. Whitmore, Mr. H. Wilson, and Mr. Woodall.

Colour Blindness.

On Thursday, the 20th inst., Dr. Farquharson asked the President of the Board of Trade whether he was aware that much dissatisfaction existed among scientific men as to the sufficiency of the tests now used in the mercantile marine for the detection of colour blindness; and whether he would appoint a committee of experts to advise the Government on this important question.—In reply, Sir M. H. Beach said that his attention had been called to the subject. He had been in communication with the Royal Society, and was happy to say that that Society had undertaken to appoint a scientific committee to inquire into the whole question.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALEXANDER, ADOLPHUS B., L.D.S. R.C.S., has been appointed Dental Surgeon to the Whitechapel Branch of the Metropolitan Provident Medical Association.

COLLINGRIDGE, W., M.D., M.B., M.R.C.S., has been reappointed Medical Officer of Health for the Port of London.

COWIE, J., M.B., C.M. Aberd., has been appointed Medical Officer for the Sixth District of the Devizes Union.

DANIELL, G. H. S., M.B., B.C. Cantab., has been appointed Obstetric House Physician to Guy's Hospital.

EASON, A. M., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Lytham Union District.

FLINN, J. J., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of the Belmont-road Workhouse Infirmary, West Derby Union.

FORD, JOSEPH, M.R.C.S., has been reappointed Medical Officer for the No. 9B District of the Axbridge Union.

GILL, J. M'D., M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to Guy's Hospital.

HARVEY, J. T., M.B. & C.M. Edin., M.R.C.S., has been appointed Medical Examiner for the Colonial Mutual Life Assurance Society, Melbourne.

HICKMAN, HERBERT V., M.R.C.S., L.R.C.P. Lond., has been appointed Obstetric House Physician to Guy's Hospital.

HILL, C. M., L.R.C.P. Lond., M.R.C.S., has been appointed an Honorary Surgeon to Doncaster Infirmary.

HONMAN, A., M.R.C.S., has been appointed Government Health Officer at Williamstown, Australia, vice Figg, resigned.

HUBBERSTY, R. S., M.D. Edin., M.R.C.S., has been appointed Resident Assistant to the Wolverhampton Eye Infirmary.

JAY, FREDK. FITZHERBERT, M.D. St. And., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Physician to the West of England Hydropathic Establishment, Bath, vice James Atkinson, M.D., deceased.

JONES, E. W. T., has been reappointed Analyst for the Borough of Wolverhampton.

KEBBELL, A., M.R.C.S., has been reappointed Medical Officer for the Fourth District of the York Union.

LANSDOWN, R. G. P., M.B., B.S. Dur., has been appointed Obstetric House Physician to Guy's Hospital.

LOVETT, S. R., L.R.C.P. Edin., has been reappointed Medical Officer for the St. Giles's District, W.C.

MITCHELL, R., M.B., C.M. Edin., has been appointed Medical Officer for the Hebburn District, South Shields.

MORRIS, W., L.R.C.P. Edin., L.F.P.S. Glas., has been appointed Medical Officer of the Workhouse, Bolton Union, vice Marsh, resigned.

PEACOCK, E., M.R.C.S., has been reappointed Medical Officer for Chilvers Coton, Warwickshire.

PORTER, J. F., M.D. Dub., M.R.C.S., has been reappointed Medical Officer for Helmsley.

PRESTON, W., M.B., C.M. Edin., has been reappointed Medical Officer for the Fifth District of the York Union.

PRIDIE, J. F., M.B., C.M. Edin., has been appointed House Surgeon to the Southport Infirmary and Local Dispensary.

REID, J. R., M.B., C.M. Aberd., has been appointed Medical Officer for the Oswaldkirk District of the Helmsley Union, vice Dowker.

ROBINSON, J. K., M.B., C.M. Edin., has been appointed an Honorary Surgeon to Doncaster Infirmary.

SERS, R. H., M.R.C.S., has been reappointed Medical Officer for the Calverton District of the Basford Union.

THOMAS, A. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Swaffham Union District, vice Emerson, resigned.

TWINING, A. H., M.R.C.S., has been reappointed Medical Officer for the Kingsbridge Rural District.

WAUGH, A., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Midsomer-Norton Union District.

WHITCOMBE, P., M.R.C.S., has been reappointed Medical Officer to the Hospital at Gravesend.

WOLVERSON, T., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Second District of the Wolverhampton Union.

WRIGHT, FRED., L.S.A., has been reappointed Medical Officer for the Third District of the York Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANDRADE, 43, Railway-terrace, Rugby.—A Qualified Man to Manage a Medical Aid Company in Leamington.

BETHLEM HOSPITAL.—Two Resident Clinical Assistants. Residence for a term generally of six months. Such apartments, rations, and attendance provided as the committee consider reasonable. (Apply at Bridewell Hospital, Blackfriars, E.C.)

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W. — Dispenser. Salary £70 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary £100 per annum. (Apply to the Secretary, 24, Finsbury-circus, E.C.)

EAST SUFFOLK AND IPSWICH HOSPITAL.—Assistant House Surgeon. (Apply to the Secretary, Thoroughfare, Cornhill, Ipswich.)

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon for six months. No salary, but residence, board, and washing provided.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY, Cardiff. — Assistant House Surgeon for six months. Board, lodging, and washing provided.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. House Physicians.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London.—Resident Medical Officer. Salary £50 a year, with board and rooms.

KING'S COLLEGE, London.—Chair of Psychological Medicine.

METROPOLITAN HOSPITAL, Kingsland-road, E.—Obstetric Physician. Also House Physician and House Surgeon, each tenable for one year; and also Assistant House Surgeon, tenable for six months. The House Physician and House Surgeon will each receive a salary at the rate of £60 per annum for the first six months, and at the rate of £70 per annum for the second six months.

MINING AND EXPLORING EXPEDITION TO SOUTH AFRICA.—Medical Officer (single). (Apply by letter to Mr. N. Clayden, 191, Gresham House, Old Broad-street, London).

OXFORD EYE HOSPITAL.—Surgeon. Board and lodging and £50 honorarium at the end of a year.

RADCLIFFE INFIRMARY, Oxford.—House Physician. Salary £80, with board, lodging, and washing.

RANGOON MUNICIPALITY.—Health Officer to the Municipality. Salary Rs. 600 per mensem, rising by annual increments of Rs. 50 per annum to Rs. 1000. (Apply to Mr. J. Short, Secretary, Rangoon Municipality.)

ROYAL COLLEGE OF PHYSICIANS, Edinburgh.—Superintendent of the Research Laboratory. Salary £300 per annum.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, London.—Registrar and Chloroformist.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—Surgeon and an Assistant Surgeon.

SOUTH-WESTERN HOSPITAL, Landor-road, Stockwell, S.W.—Clinical Assistant for six months. Remuneration, residence, and rations. (Apply to the Medical Superintendent at the hospital.)

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta-street, Covent-garden.—House Surgeon for six months. Honorarium 25 guineas, board, lodging, and washing.

UNIVERSITY OF EDINBURGH.—An additional Examiner. Salary £90 a year, with an allowance of £10 a year for travelling and other expenses in the case of an examiner not resident in Edinburgh or the immediate neighbourhood.

Births, Marriages, and Deaths.

BIRTHS.

HOLMES.—On March 19th, the wife of Dr. W. Reid Holmes, of 3, Clifford-street, W., of a daughter.

MACNAMARA.—On March 15th, at Conduit-street, W., the wife of Hugh Macnamara, Surgeon R.N., H.M.S. *Imogene*, of a son.

SLOGGETT.—On March 18th, at Home Park, Devonport, the wife of A. T. Sloggett, Army Medical Staff, of a daughter.

STORRY.—On March 17th, at Lansdown, Stroud, the wife of Fred. W. Storry, surgeon, of a son.

MARRIAGE.

DONOVAN—LOPEZ.—On Feb. 18th, at Tavanore, Chapelton, Jamaica, W.I., by the Rev. P. J. Hogan, S.J., Justin F. Donovan, M.D., Colonial Medical Service, late Surgeon Royal Navy, to Lilian, only daughter of the late Washington Lopez, Jamaica.

DEATHS.

ANDERSON.—On March 15th, at Dovecot, Selkirk, N.B., Henry Scott Anderson, M.D., F.R.C.S., in his 79th year.

ANSTIE.—On March 16th, at Bernchah, Kerley-road, Bournemouth, William Charles Anstie, L.R.C.P. Lond., M.R.C.S., aged 26.

MACPHERSON. — On March 17th, at Curzon-street, Mayfair, John Macpherson, M.D., aged 72.

MILLER.—On March 13th, at Eye, Suffolk, W. W. Miller, M.D., J.P. for Suffolk, in his 72nd year.

TURNER.—On March 8th, at High Wycombe, John Turner, J.P., F.R.C.S., aged 88.

WILD.—On March 12th, at his residence, West Kensington, Staff Surgeon-Major William Walter Wild.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, March 21.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
THE THROAT HOSPITAL (Golden-square, W.).—5.30 P.M. Dr. James W. Bond: Disorders of the Tonsils.
SOCIETY OF ARTS.—8 P.M. Prof. A. H. Church: Some Considerations concerning Colour and Colouring. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Percy Kidd: Subacute Indurative Pneumonia.—Mr. William Adams: Further Observations on the Treatment of Dupuytren's Finger Contraction.

Tuesday, March 25.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. G. J. Romanes: The Post-Darwinian Period.
ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. Hughlings Jackson: Convulsive Seizures. (Lumleian Lecture.)
SOCIETY OF ARTS.—8 P.M. Mr. W. J. Linton: Engraving in Wood, Old and New.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Sir William Roberts: On the History of Uric Acid in the Urine, with reference to the Formation of Uric Acid Concretions and Deposits.

Wednesday, March 26.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—8 P.M. Dr. Horrocks: Observations on Puerperal Fever, with cases.
SOCIETY OF ARTS.—8 P.M. Mr. G. N. Hooper: Carriage Building and Street Traffic in England and France.
BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Specimens by Drs. M. T. Smith, Bantock, Fenton, &c. Dr. W. H. Fenton: A case of Myxoma of the Uterus.

Thursday, March 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Mr. F. Niecks: The Early Developments of the Forms of Instrumental Music. (With Musical Illustrations.)
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. H. Lewis Jones: Bronchial Asthma.
ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. Hughlings Jackson: Convulsive Seizures. (Lumleian Lecture.)

Friday, March 28.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Claude Wilson: Some cases showing Hereditary Enlargement of Spleen.—Mr. H. W. Allingham: Obscure case of Acute Abdominal Obstruction in a Boy aged ten; Laparotomy; Removal of Suppurating Appendix Vermiformis; Recovery.—Dr. Myrtle: A case of Double Ovariotomy, 1882; Removal of Left Kidney, with portion of Mesentery, 1889; followed by Abscess finding Vent through Left Lung; Recovery.—Dr. Finlay: A case of Rheumatic Pericarditis with Delirium.
ROYAL INSTITUTION.—9 P.M. Lord Rayleigh: Foam.

Saturday, March 29.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Electricity and Magnetism.
SOCIETY OF ARTS.—3 P.M. Prof. Vivian Lewes: The Atmosphere.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 20th, 1890.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 14	29·86	W.	46	43	92	59	43	..	Cloudy
,, 15	29·67	S.W.	48	47	84	54	45	..	Overcast
,, 16	29·31	S.W.	54	50	97	60	43	..	Cloudy
,, 17	29·39	W.	43	40	100	56	39	..	Bright
,, 18	29·50	S.E.	42	39	81	52	38	..	Hazy
,, 19	29·45	S.E.	44	43	69	46	41	·13	Raining
,, 20	29·40	W.	39	38	..	43	34	·38	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

"DR." SHERMAN OF CHANCERY-LANE.

WE extract the following paragraph from the *Chemist and Druggist* of March 15th:

"*A Truss Case.*—On Thursday, in the Westminster County Court, Mary Hammond, a domestic servant, employed at Holland-park, sued Mr. J. A. Sherman, 64, Chancery-lane, for £25 damages for alleged negligence in treatment. In consequence of seeing an advertisement, the plaintiff said she called on Sherman and consulted him. He said he could cure her, and she paid one guinea for an examination. Sherman, who is not a qualified doctor, took off a truss she was wearing and put on his appliance, telling her he would cure her for 20 guineas. She borrowed that amount from her mistress and gave it to defendant. The appliance, instead of curing her, as guaranteed, made her worse. Mr. Boodie, her solicitor, was consulted, and wrote demanding the return of the money and threatening an action if it was not paid, and a day or so after that a gentleman called upon her and handed her £21, she giving a receipt stating that she took the amount in settlement. The defence was that the receipt was a bar. Mr. Candy submitted there was no case to go to the jury, and his Honour concurred. Judgment for the defendant was entered with costs, not to be taken if no further proceedings are taken."

"Dr." Sherman is the individual who, it will be remembered, had the impudence to include in his pamphlet, scattered broadcast in London, the mendacious statement that he had received "a lengthy and laudatory notice in the *Lancet*."

F. H. R. might make his application direct to Mr. R. Warrington, F.R.S., Harpenden, Herts, who, we are sure, would give our correspondent the information he requires.

L.R.C.S.—As our correspondent would address a licentiate, unless possessed of a medical degree.

A Medical Officer of Health.—Every case should be separately reported.

"REDUCED CONSUMPTION OF ALCOHOL IN HOSPITALS."

To the Editors of THE LANCET.

SIRS,—In an annotation in your issue of March 8th there is a statement, founded on the report of the British Medical Temperance Association, to the effect that the amount spent upon alcohol per bed in this hospital was £3 5*s.* in 1863, and 15*s.* 9*d.* in 1888. In order that this statement, which is fairly accurate, may not create a false impression, it should be added that the majority of the beds were occupied in 1863 by severe cases of typhus, and in 1888 by mild cases of scarlet fever.

I am, Sirs, your obedient servant,

E. O. HOPWOOD.

London Fever Hospital, Liverpool-road, N., March 14th, 1890.

THE CAUSE OF LEPROSY.

IN reference to this question, *Hindu* writes: "With regard to fish eating as a cause of leprosy, I know several persons in India belonging to the Brahmin caste who are the subjects of this disease, and Brahmins as a class are pure vegetarians, and do not eat fish. I know also, as a matter of fact, that these Brahmin lepers never ate fish in all their lives."

Doubtful.—The question of our correspondent's duty is one not free from difficulty. He should insist strongly to the wife on the necessity for a continued treatment, as he has done to the husband. This does not necessarily involve the disclosure of his opinion as to the source of the disease. If categorically asked again on this matter, we cannot see that he could or should conceal his opinion; though even then it might be better to advise the husband to make a frank confession than to directly blame him. If not asked his opinion, we see little good in the medical attendant volunteering it. The physical mischief is already done. It cannot be averted, though we may hope it will be cured. The source of it is probably suspected by the one who is so deeply injured. It is a case with great moral bearings. The medical man may come to have almost religious duties in such circumstances. But his primary duties are strictly medical.

F.—The question is a purely legal one—one of contract. We doubt whether our correspondent has the legal right to refuse attendance on any member; otherwise he could do so with reason and dignity.

F.R.C.S.—From two to three pounds.

DEFENCE OF MEDICAL AID SOCIETIES.

To the Editors of THE LANCET.

SIRS,—I am always amused at the letters from time to time appearing in THE LANCET about medical aid societies. They always go in so strongly for abusing those who have any connexion with them. Most of the writers probably have no personal knowledge whatever of the societies in question, and, simply because 1*d.* a week is charged, call it preposterous to think that a medical man should give his services at such a remuneration. As medical officer to one of these societies containing 400 members (men, women, and children), and in which 1*d.* a week is paid by those over twelve years of age, and ½*d.* by those under that age, I beg to say that I consider the society pays me very well, and is much less irksome than if I had to attend these people as private patients, and have the trouble of sending bills and getting the money in afterwards. I may add that I exercise my own discretion about admitting members, and up to the present I have not had to refuse any on the ground of their circumstances not warranting their obtaining a medical man for a weekly sum. My experience tells me that in a country town few take advantage of the society who are really able to pay as private patients. In large towns, where it is more difficult to know individuals, no doubt this might be done to a greater extent. I find on looking over the list that more than half the members belong to families of more than five in number, not counting the father (who is generally in a club). I do not consider a man who has to keep six people on from 16*s.* to 25*s.* a week can afford to pay a bill of over £2 a year to a doctor. But as a member of a medical aid society he always has to pay from 15*s.* to £1 a year, whether there is sickness in the house or not; so that the only way in which he benefits is by being able to pay a weekly sum, and this, I consider, is the real secret of these societies. I do not believe a working man gains anything beyond this privilege of weekly contribution by joining a medical aid society, unless of course there be exceptional sickness in his house. Many of the members in my own society have paid in for long periods without needing any medicine or advice. I pay an agent 20 per cent. for collecting the money; he gets about 5*s.* a week and I get £1. How many parish appointments are as well paid as this?

Another view of the matter is that many join these societies who, if the society did not exist, would get a parish order, so that it lessens the work of the district medical officers very considerably. I can see no difference myself between the terms on which a medical man takes a club and those on which he takes a medical aid society, except that the medical aid society pays 2*d.* a year extra, for few clubs pay more than 4*s.* per member per annum.

In conclusion, I believe that, providing the agent be a trustworthy man, and one who knows the inhabitants fairly well, these societies benefit both the medical officer and the members, but in careless hands they may do an immense amount of harm.

I am, Sirs, yours truly,

March, 1890. ANTI-HUMBUG.

MEDICAL EXAMINATION OF SUSPECTED PERSONS.

To the Editors of THE LANCET.

SIRS,—Referring to your annotation on the above in your issue of the 22nd ult., page 419, I write to say that I have some reprints of my paper, and shall be happy to send a copy to such of your readers as may send me a request for one, enclosing a halfpenny stamp. I am anxious that it should circulate amongst those to whom it is likely to prove most useful—police surgeons, resident surgeons of hospitals and dispensaries, and those who are likely to be called upon to make such examinations.

I am, Sirs, yours faithfully,

40, Knight-street, Liverpool, March 4th, 1890. FRED. W. LOWNDES.

TOUTING IN SOUTHWARK.

THE following work of art in the shape of a touting card is sent to us. We give only half of the information which is thus dropped into the houses in the vicinity of St. George's-circus, S.E., where the consultation may be had.

"Patients visited at home every other day, 3*s.* per week. Every day (except Sundays), 5*s.* per week. Sunday visit, 2*s.* These visits are given when the doctor is on his rounds. To secure attention at above low fees, notice must be left at surgery before 12, & money paid in advance. Special or immediate visit by day, 2*s.* After 10 at night, 5*s.*"

M.R.C.P.—The conditions upon which medical men are admitted to the Bar are that they become members of one or other of the four Inns of Court—Lincoln's Inn, Inner Temple, Middle Temple, and Gray's Inn; that they keep twelve terms at their respective Inns, each term being kept by a certain number of dinners in hall, the number being in the case of a student who is a member of a university three, and in the case of any other student six; that after having kept nine terms they pass an examination in the four branches of Roman Law, Common Law, Law of Real Property, and Equity; and, after having kept the twelve terms, that they receive the "call" from the benchers of their respective Inns. There are four terms in every year, so that the whole course may be passed through in a period slightly less than three years; but it may be indefinitely prolonged, as the terms count, though the attendance of the student may be interrupted. The stamp duty, fees, and charges amount in all to about £150, the two last-named items varying slightly at the different Inns. It is generally necessary for a student intending to practise to pass twelve months in the pupil-room of a practising barrister, the fee for which is one hundred guineas; but this is not a condition of the call, nor is it any part of the qualification.

DOUBLE CURRENT TUBE FOR INTRA-UTERINE INJECTIONS.

To the Editors of THE LANCET.

SIRS,—Dr. Graily Hewitt's double current tube for intra-uterine injections, described in your issue of March 8th, p. 533, is quite similar to Ollivier's, except that this one is made of vulcanite, and has a sigmoid curve, which facilitates its introduction. Whatever be the material, it is by no means easy to keep a tube really aseptic. Consequently I had made in Paris, by Collier ("Archives de Tocologie," 1889, p. 878), an intra-uterine sound having no tube, but two deep grooves. An indiarubber covering completes the tubes when it is slipped over the instrument. Being inexpensive, this covering may be thrown away after use. The grooves are easily cleaned with a brush. I believe Dr. R. Barnes has been kind enough to present my little contrivance to the last meeting of the British Medical Association.—I am, Sirs, yours respectfully,

Geneva, March 11th, 1890. A. CORDES.

HEREDITARY TRANSMISSION OF MUTILATION.

To the Editors of THE LANCET.

SIRS,—With reference to your article on the subject of acquired mutilation in the parent being transmitted to the child, I have read with great interest the account of the Manx male cat of the Black Forest, which caused so much excitement among certain German professors. It may be of interest to your readers to know that I can confirm the truth of the story. The cat's mistress was a great personal friend of mine, and she took him to Germany in, I think, 1882. He bore the most inappropriate name of "Countess of Derby." I am able from other circumstances within my recollection to fix the date with some precision, and this, the only fact of possible importance in the story, emboldens me to trouble you with this letter.

I am, Sirs, yours faithfully,

Barton-street, S.W., March 19th, 1890. C. C. M. COX.

EARLY MATERNITY.

To the Editors of THE LANCET.

SIRS,—The following case of early maternity may be deemed of sufficient interest for insertion.

I was called up at 4 A.M. on Tuesday morning to attend a girl, whose age was stated to be thirteen years and eleven months, in her confinement. She was delivered shortly after my arrival of a well-formed male child, weighing about 8 lb. With the exception of slight hæmorrhage just before the placenta was expelled, nothing unusual occurred, and when seen again at 11 A.M. both mother and infant were doing well. I may mention that the young mother's height was given as 5 ft. 8 in., and weight 9 st., and that the first menstrual flow appeared soon after the age of twelve.—I am, Sirs, yours faithfully,

Walthamstow, March, 1890. ARTHUR E. PRICE.

THE CLARIONET.

To the Editors of THE LANCET.

SIRS,—Will any of your numerous readers kindly inform me of what injuries the neck is liable to by playing the clarionet?

I am, Sirs, yours obediently,

March 18th, 1890. B FLAT.

SUPERVISION OF HOMES FOR INEBRIATES.

WE should be glad to have particulars from our correspondent in support of his views on this subject, not necessarily for publication.

Mr. H. S. Shaw.—In a case tried at the Croydon County Court it was decided that a medical officer of a Poor-law infirmary is not entitled to any remuneration for giving evidence at inquests and making post-mortem examinations of the bodies of persons admitted to the infirmary. If brought in dead the case is different, for then the usual fees can be legally claimed. A medical officer is bound to make a post-mortem examination and give evidence on receiving a coroner's order.

Messrs. Dakin Brothers.—We are not aware of any other address than that given.

Mr. Gilfillan should consult a surgeon.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Pugin Thornton, Canterbury; Mr. Mansell-Moullin, London; Dr. Herbert Snow, London; Dr. Fenton, London; Mr. F. Treves; Mr. Christopher Heath, London; Mr. C. J. Ogle; Dr Cuff, Scarborough; Dr. Ogier Ward, Tottenham; Mr. W. J. Baird, Birmingham, Ala.; Dr. Leslie Phillips, Balsall Heath; Mr. D'A. B. Carter, Shipley; Mr. Lawson Tait, Birmingham; Mr. Vacher, Birkenhead; Mr. Raye; Mr. Cripps Lawrence; Mr. West, Taunton; Dr. Luff, London; Dr. R. Lee, London; Rev. J. Gibson; Dr. Menzies, Brighton; Messrs. Mottershead and Co., Manchester; Dr. R. R. Rentoul, Liverpool; Messrs. Christy and Co., London; Mr. Harper, Barnstaple; Mr. Lawton, Poole; Dr. G. de Griffith, London; Mr. W. Gibson, Burton-on-Trent; Messrs. W. and A. K. Johnston, Edinburgh; Mr. A. Routh, London; Messrs. Back and Co., London; Dr. Jas. Barr, Liverpool; Messrs. Robertson and Scott, Edinburgh; Mr. G. St. George, Lisburn; Messrs. Blackwood and Sons, London; Mr. E. A. Burgess, Cricklewood; Messrs. Reid and Donald, Perth; Mr. T. C. Hubbard, Walsall; Messrs. Wilcox and Co., London; Surgeon-Major Lawrie, Hyderabad; Messrs. Cassell and Co., London; Dr. F. S. Gramshaw, Easingwold; Messrs. J. Beal and Son, Brighton; Mr. T. W. Christie, Liverpool; Messrs. Hewlett and Son, London; Mr. Broster, Wirksworth; Dr. W. C. Steele, Ealing; Dr. G. Wilks, Ashford; Mr. Foulerton, Chatham; Mr. Knowles, Liverpool; Mr. E. Turner, London; Dr. Perkins, Streatham; Dr. Cordes, Geneva; Dr. R. C. Priestley, London; Mr. Poland, London; Mr. A. E. Davis, Liverpool; Dr. Hopwood, London; Mr. Dingle; Mr. Beaumont, Bath; Dr. Stillman, Chicago; Mr. G. W. Hambleton, London; Mr. A. Sutherland, Glasgow; Mr. Bennett, Liverpool; Mr. Sharpe, Nottinghill; Mr. Scott, Liverpool; Dr. Bernstein, Lismore, N.S.W.; Dr. Swift Walker, Hanley; Dr. Bourneville, Paris; Mr. Aylward, Tunbridge Wells; Mr. Davies, Bath; Surgeon Hall, India; Messrs. Wright and Co., Bristol; Mr. Canney, Brompton; Mr. Amyott, Diss; Dr. R. H. Fox, London; Mr. H. P. Symonds, Oxford; Mr. Hine, Ealing; Dr. L. Benham, London; Mr. Prentice, Canterbury; Mr. Flynn, Cowbridge; Mr. Berry, Wigan; Dr. J. L. Kerr, Manchester; Mr. Lowndes, Liverpool; Dr. Mowat, London; Mr. H. Vos, London; Dr. J. Anderson, Poulton-le-Fylde; Mr. Reeves, London; Mr. A. S. Mather, Liverpool; Messrs. Price, Battersea; Mr. Dolrashian, Peru; Dr. Smith, Monifieth, N.B.; Surg.-Major Harmer, Hawkhurst; Mr. Stanmore Bishop, Manchester; Mr. Cheetham, Rochdale; Messrs. Zimmerman and Co., London; Dr. Storey, Belfast; Mr. Penny, London; Dr. W. Freeman, Andover; Mr. J. C. Davies, Ruabon; Mr. J. P. Richards, Hanwell; Mr. Oldham, Alvaston; Mr. Langran, Axminster; Dr. Fox, Strathpeffer; Mr. W. H. Browne, Leeds; Surgeon-General Marston, London; Dr. Jardine, Richmond; Mr. Grattan, Cork; Mr. Hartridge, London; Mr. L. Zraick, Syria; Mr. Hodgson, London; Mr. Hicks, Hatton-garden; Dr. W. Nicholson, Greenwich; Dr. Woodman, Maidavale; Mr. Thomas, Cardiff; Mr. Fraser, Dublin; M. Dureau, Paris; Mr. Heaven, Grantham; Mr. Davies, Manchester; Mr. Stenhouse, Glasgow; Mr. Trommsdorff, Germany; Mr. Scott, co. Durham; Mr. H. Cripps, London; Dr. Newman, Stamford; Mr. Coates; Mr. Coryn, Cornwall; Mr. Considine, Clare; Mr. Watson, London; Messrs. Van Holland and Zoon, London; Dr. Soden, Coventry; Messrs. Orridge and Co., London; Mr. Sanderson, Brighton; Messrs. Maythorn and Son, Biggleswade; Mrs. Turner, Finsbury-park; Messrs. Powneeby and Co., London; Mr. Hornibrook, London; Messrs. W. H. Smith and Son, London; Dr. Hall, Brighton; Mr. Gould; Messrs. Baylis and Co., London; Mr. Ross, Liverpool; Mr. Geddes; Mr. Fletcher, Stockport; Mr. Abbott; Dr. Dowding; Mr. Row; M. O. H.; E. T.; Sigma; Secretary, Jessop Hospital, Sheffield; F.R.C.S.; Secretary, Glamorgan Infirmary; Doubtful; B Flat; F. H. R.; Dr. M., London; F.; Lady Superintendent, School of Massage, London; Geddes Manufacturing Co., London; G. P.; Chocolat-Menier, London; Secretary, Radcliffe Infirmary, Oxford; B. S., London; Royal College of Surgeons, Ireland; E. B., Leamington; Secretary, East Suffolk Hospital; Secretary, Royal Albert Edward Infirmary, Wigan.

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NEWSPAPERS.—*Bucks Herald, Worcester Daily Times, Liverpool Daily Post, Kensington Reporter, Mining Journal, Pharmaceutical Journal, Bristol Mercury, Saturday Review, Leeds Mercury, St. James's Gazette, Kilkenny Journal, Law Journal, Weekly Free Press, Surrey Advertiser, Hertfordshire Mercury, City Press, Local Government Chronicle, West Middlesex Advertiser, Reading Mercury, Sunday Times, Broad Arrow, Builder, Sheffield Daily Telegraph, Chemist and Druggist, Metropolitan, Home and Colonial Mail, Truth, Echo (Demerara), Worthing Intelligencer, Shields Daily Gazette, Public Opinion, Glasgow Evening News, Fish Trade Gazette, Empress (Calcutta), Daily Graphic, Puck, Windsor and Eton Express, Lancaster Guardian, Star, Oban Times, Southport Visitor, East Anglian Daily Times, South London Chronicle, Bombay Gazette, Christian Leader, Somerset County Gazette, The Press (Philadelphia)*, &c., have been received.

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NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.